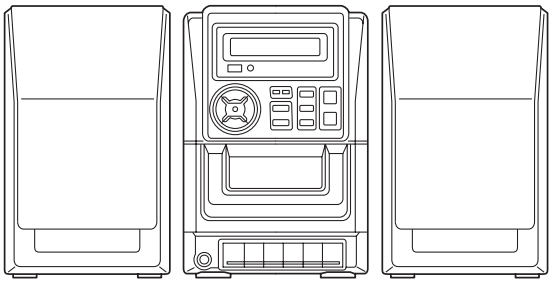
aiwa
SERVICE

LCX-137

HR(S) HA(S)

VJ(S) HT(S)

HS(S) HC(S)



SERVICE MANUAL

COMPACT DISC STEREO SYSTEM

BASIC TAPE MECHANISM : TN-21ZSC-2003
BASIC CD MECHANISM : DA11T3C

aiwa

S/M Code No. 09-003-340-2N1

DATA

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SPECIFICATIONS

HA, HC, HR, HT MODELS

MAIN UNIT

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Antenna terminals	75 ohms (unbalanced)

AM tuner section

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Antenna	Loop antenna

Amplifier section

Power output	4 W + 4 W (4 ohms, T.H.D. 1%, 1 kHz) 5 W + 5 W (4 ohms, T.H.D. 10%, 1 kHz)
Input	AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 4 ohms or more PHONES (stereo minijack): accepts headphones of 32 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	Normal tape: 50 Hz – 10000 Hz
Recording system	AC bias
Erasure system	Magnet erase
Heads	Recording/playback × 1 Erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit linear
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speakers	100 mm cone type 100 mm cone type, 4 ohms
Impedance	4 ohms
Dimensions (W × H × D)	140 × 236.5 × 198 mm (HA MODEL ONLY)
Weight	1.1 kg

GENERAL

Power requirements	120/220-240V AC, switchable, 50/60 Hz
Power consumption	25 W
Dimensions of main unit (W × H × D)	160 × 236.5 × 202.5 mm
Weight of main unit	2.5 kg

- Design and specifications are subject to change without notice.

HS MODEL

MAIN UNIT

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Antenna terminals	75 ohms (unbalanced)

MW tuner section

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Antenna	Loop antenna

LW tuner section

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

Amplifier section

Power output	Rated: 4 W + 4 W (4 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 5 W + 5 W (4 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
Input	AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 4 ohms or more PHONES (stereo minijack): accepts headphones of 32 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	Normal tape: 50 Hz – 10000 Hz
Recording system	AC bias
Erasure system	Magnet erase
Heads	Recording/playback × 1 Erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit linear
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speakers	100 mm cone type, 4 ohms
Impedance	4 ohms
Dimensions (W × H × D)	140 × 236.5 × 198 mm
Weight	1.1 kg

GENERAL

Power requirements	220V AC, 60 Hz
Power consumption	25 W
Dimensions of main unit (W × H × D)	160 × 236.5 × 202.5 mm
Weight of main unit	2.5 kg

- Design and specifications are subject to change without notice.

VJ MODEL

MAIN UNIT

FM tuner section

Tuning range	FM1 (OIRT): 65.0 MHz to 74.0 MHz FM2 (CCIR): 87.5 MHz to 108 MHz
Antenna terminals	75 ohms (unbalanced)

AM tuner section

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Antenna	Loop antenna

Amplifier section

Power output	Rated: 4 W + 4 W (4 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 5 W + 5 W (4 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
Input	AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 4 ohms or more PHONES (stereo minijack): accepts headphones of 32 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	Normal tape: 50 Hz – 10000 Hz
Recording system	AC bias
Erasure system	Magnet erase
Heads	Recording/playback × 1 Erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit linear
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speakers	100 mm cone type
Impedance	4 ohms
Dimensions (W × H × D)	140 × 236.5 × 198 mm
Weight	1.1 kg

GENERAL

Power requirements	230V AC, 50 Hz
Power consumption	25 W
Dimensions of main unit (W × H × D)	160 × 236.5 × 202.5 mm
Weight of main unit	2.5 kg

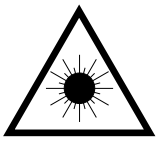
- Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

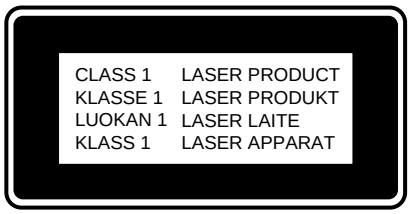
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

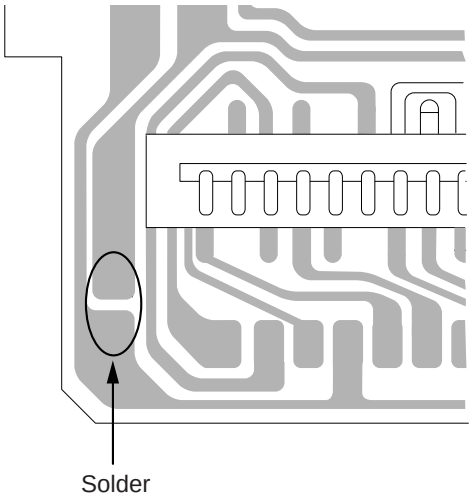


Precaution to replace Optical block (SF-P101NR)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.

PICK-UP Assy P.C.B



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-734-010		IC,TDA2007A
	87-A21-443-040		C-IC,M62495AFP
	8A-CLB-602-010		IC,LC867240A-5P15
	87-A21-245-010		IC,RPM6938-V4
	87-A21-145-040		C-IC,BA4560F-E2
	87-A20-446-010		C-IC,LA9241ML
	87-A20-459-010		C-IC,LC78622ED
	87-A21-093-010		IC,LA6541D
	87-070-127-110		IC,LC72131 D
	87-A20-913-010		IC,LA1837NL
TRANSISTOR			
	87-026-610-080		TR,KTC3198GR
	89-213-702-010		TR,2SB1370 (1.8W)
	87-A30-185-010		TR,2SD1381FQR
	87-026-313-080		TR,DTC343TS
	87-026-237-080		CHIP-TR,DTC124XK
	87-026-223-080		TR,DTC143TK
	89-320-011-080		TR,2SC2001 (15W)
	87-CD7-603-080		TR,SS8050<HSS>
	89-318-154-080		TR,2SC1815 (0.4W)
	87-026-291-080		TR,DTC124XS
	89-112-965-080		TR,2SA1296 (0.75W)
	87-A30-227-080		TR,2SB1010Q
	87-026-463-080		TR,2SA933S (0.3W)
	87-026-239-080		TR,DTC114TK (0.2W)
	87-026-210-080		CHIP-TR,DTC144EK
	87-A30-196-080		TR,2SC4115SRS
	89-327-143-080		TR,2SC2714 (0.1W)
	87-A30-072-080		C-TR,RT1P 144C
	89-505-434-540		C-FET,2SK543(4/5)<HSS>
	87-A30-257-080		C-TR,2SD1306E<HSS>
	87-A30-074-080		C-TR,RT1P 141C<HSS>
DIODE			
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-070-334-080		ZENER,MTZJ10B
	87-017-932-080		ZENER,MTJ6.2B
	87-A40-347-080		ZENER,MTZJ2.2B
	87-070-136-080		ZENER,MTZJ5.1B
	87-020-027-080		CHIP-DIODE 1SS184<HA,VJS,HSS>
	87-027-825-080		ZENER,HZ9A3L
	87-017-978-080		DIODE,1N4003
	87-A40-291-080		DIODE,1N4148 (CPT)
	87-A40-234-080		ZENER,MTZJ5.6A<HSS>
	87-A40-270-080		C-DIODE,MC2838<HSS>
MAIN C.B			
C101	87-010-190-080		S CHIP F 0.01
C102	87-010-190-080		S CHIP F 0.01
C103	87-010-190-080		S CHIP F 0.01
C104	87-010-404-080		CAP, ELECT 4.7-50V
C105	87-010-403-080		CAP, ELECT 3.3-50V
C106	87-010-192-080		C-CAP,S 0.022-50 F
C107	87-010-192-080		C-CAP,S 0.022-50 F
C108	87-010-192-080		C-CAP,S 0.022-50 F
C109	87-010-192-080		C-CAP,S 0.022-50 F
C110	87-010-190-080		S CHIP F 0.01
C111	87-016-658-090		CAP,E 4700-35 SMG
C112	87-012-140-080		CAP 470P
C113	87-010-190-080		S CHIP F 0.01
C114	87-010-408-080		CAP, ELECT 47-50V
C115	87-010-112-080		CAP, ELECT 100-16V
C116	87-010-101-080		CAP, ELECT 220-16
C118	87-010-263-080		CAP, ELECT 100-10V
C119	87-010-197-080		CAP, CHIP 0.01 DM
C120	87-010-401-080		CAP, ELECT 1-50V
C121	87-010-386-080		CAP,E 330-25 M SME
C122	87-010-213-080		C-CAP,S 0.015-50 B
C123	87-010-404-080		CAP, ELECT 4.7-50V
C124	87-010-402-080		CAP, ELECT 2.2-50V
C126	87-010-408-080		CAP, ELECT 47-50V
C127	87-010-248-080		CAP, ELECT 220-10V
C132	87-010-237-080		CAP, ELECT 1000-16V
C136	87-010-197-080		CAP, CHIP 0.01 DM
C137	87-010-197-080		CAP, CHIP 0.01 DM
C138	87-010-197-080		CAP, CHIP 0.01 DM
C139	87-010-197-080		CAP, CHIP 0.01 DM
C143	87-010-401-080		CAP, ELECT 1-50V
C144	87-010-401-080		CAP, ELECT 1-50V
C147	87-010-190-080		S CHIP F 0.01
C148	87-010-190-080		S CHIP F 0.01
C149	87-010-190-080		S CHIP F 0.01
C150	87-010-263-080		CAP, ELECT 100-10V
C151	87-010-263-080		CAP, ELECT 100-10V
C152	87-010-182-080		C-CAP,S 2200P-50 B
C153	87-010-166-080		C-CAP,S 100P-50 SL
C154	87-010-545-080		CAP, ELECT 0.22-50V
C155	87-010-545-080		CAP, ELECT 0.22-50V
C157	87-010-404-080		CAP, ELECT 4.7-50V
C158	87-010-545-080		CAP, ELECT 0.22-50V
C159	87-010-545-080		CAP, ELECT 0.22-50V
C161	87-010-404-080		CAP, ELECT 4.7-50V
C162	87-010-405-080		CAP, ELECT 10-50V
C163	87-010-405-080		CAP, ELECT 10-50V
C164	87-010-405-080		CAP, ELECT 10-50V
C165	87-010-405-080		CAP, ELECT 10-50V
C166	87-010-404-080		CAP, ELECT 4.7-50V
C167	87-010-404-080		CAP, ELECT 4.7-50V
C169	87-010-197-080		CAP, CHIP 0.01 DM<HSS>
C170	87-010-197-080		CAP, CHIP 0.01 DM<HSS>
C171	87-010-404-080		CAP, ELECT 4.7-50V
C175	87-010-237-080		CAP, ELECT 1000-16V
C175	87-010-237-080		CAP, ELECT 1000-16V
C181	87-010-197-080		CAP, CHIP 0.01 DM
C182	87-010-197-080		CAP, CHIP 0.01 DM
C184	87-A11-317-080		C-CAP,0.068<EXCEPT HSS>
C185	87-A11-317-080		C-CAP,0.068<EXCEPT HSS>
C301	87-010-322-080		C-CAP,S 100P-50 CH
C302	87-015-951-080		CAP,E 1-50 LL
C304	87-010-406-080		CAP, ELECT 22-50
C306	87-010-405-080		CAP, ELECT 10-50V
C307	87-010-248-080		CAP, ELECT 220-10V
C308	87-010-405-080		CAP, ELECT 10-50V
C309	87-010-322-080		C-CAP,S 100P-50 CH
C311	87-010-406-080		CAP, ELECT 22-50
C312	87-015-951-080		CAP,E 1-50 LL
C314	87-010-426-080		C-CAP,S 0.012-25 B
C315	87-010-404-080		CAP, ELECT 4.7-50V
C316	87-010-404-080		CAP, ELECT 4.7-50V
C319	87-010-426-080		C-CAP,S 0.012-25 B
C320	87-010-197-080		CAP, CHIP 0.01 DM<HSS>
C322	87-010-112-080		CAP, ELECT 100-16V
C325	87-010-178-080		CHIP CAP 1000P
C326	87-010-178-080		CHIP CAP 1000P
C327	87-010-178-080		CHIP CAP 1000P
C329	87-015-695-080		CAP,E 1-50 7L
C330	87-012-140-080		CAP 470P<HSS>
C701	87-010-381-080		CAP, ELECT 330-16V
C702	87-010-404-080		CAP, ELECT 4.7-50V
C703	87-012-286-080		CAP, U 0.01-25
C704	87-012-286-080		CAP, U 0.01-25
C709	87-012-195-080		C-CAP,U 100P-50CH
C711	87-010-263-080		CAP, ELECT 100-10V

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C712	87-010-196-080		CHIP CAPACITOR,0.1-25
C713	87-012-286-080		CAP, U 0.01-25<HSS>
C714	87-012-286-080		CAP, U 0.01-25
C715	87-012-195-080		C-CAP,U 100P-50CH<HSS>
C717	87-012-286-080		CAP, U 0.01-25
C719	87-012-286-080		CAP, U 0.01-25
C720	87-012-195-080		C-CAP,U 100P-50CH
C721	87-012-176-080		CAP 15P
C722	87-012-176-080		CAP 15P
C723	87-012-274-080		CHIP CAP,U 1000P-50B
C725	87-018-131-080		CAP, CER 1000P-50V<EXCEPT HSS>
C727	87-010-196-080		CHIP CAPACITOR,0.1-25
C728	87-010-248-080		CAP, ELECT 220-10V
C729	87-012-274-080		CHIP CAP,U 1000P-50B
C731	87-012-286-080		CAP, U 0.01-25
C752	87-012-284-080		CAP, U 6800P-50<HSS>
C753	87-012-195-080		C-CAP,U 100P-50CH<HSS>
C755	87-012-286-080		CAP, U 0.01-25<HSS>
C756	87-012-286-080		CAP, U 0.01-25
C757	87-012-188-080		C-CAP,U 47P-50 CH
C758	87-012-167-080		C-CAP,U 5P-50 CH
C761	87-010-196-080		CHIP CAPACITOR,0.1-25<HSS>
C762	87-012-286-080		CAP, U 0.01-25<HSS>
C763	87-010-829-080		CAP, U 0.047-16
C764	87-012-337-080		C-CAP,U 56P-50 CH<EXCEPT HSS>
C765	87-012-286-080		CAP, U 0.01-25
C766	87-010-197-080		CAP, CHIP 0.01 DM<HSS>
C768	87-012-286-080		CAP, U 0.01-25
C769	87-010-260-080		CAP, ELECT 47-25V
C770	87-010-829-080		CAP, U 0.047-16
C771	87-010-383-080		CAP, ELECT 33-25V
C772	87-010-829-080		CAP, U 0.047-16
C773	87-010-196-080		CHIP CAPACITOR,0.1-25
C774	87-010-263-080		CAP, ELECT 100-10V
C775	87-010-404-080		CAP, ELECT 4.7-50V
C776	87-012-286-080		CAP, U 0.01-25
C777	87-010-400-080		CAP, ELECT 0.47-50V
C778	87-010-401-080		CAP, ELECT 1-50V
C779	87-010-401-080		CAP, ELECT 1-50V
C780	87-010-196-080		CHIP CAPACITOR,0.1-25
C781	87-010-405-080		CAP, ELECT 10-50V
C782	87-010-405-080		CAP, ELECT 10-50V
C783	87-012-286-080		CAP, U 0.01-25
C784	87-012-286-080		CAP, U 0.01-25
C785	87-010-401-080		CAP, ELECT 1-50V<EXCEPT HSS>
C785	87-010-405-080		CAP, ELECT 10-50V<HSS>
C786	87-010-401-080		CAP, ELECT 1-50V<EXCEPT HSS>
C786	87-010-405-080		CAP, ELECT 10-50V<HSS>
C787	87-012-287-080		C-CAP,U 0.015-25 F<HSS>
C788	87-012-287-080		C-CAP,U 0.015-25 F<HSS>
C789	87-012-275-080		C-CAP,U 1200P-50 B
C789	87-012-275-080		C-CAP,U 1200P-50 B
C790	87-012-275-080		C-CAP,U 1200P-50 B
C791	87-010-405-080		CAP, ELECT 10-50V
C793	87-012-275-080		C-CAP,U 1200P-50 B<HSS>
C793	87-012-273-080		C-CAP,U 820P-50 B<EXCEPT HSS>
C794	87-010-406-080		CAP, ELECT 22-50
C795	87-010-596-080		CAP, S 0.047-16
C796	87-010-403-080		CAP, ELECT 3.3-50V
C797	87-012-276-080		CAP, CHIP SS 1500 PBK
C798	87-012-276-080		CAP, CHIP SS 1500 PBK
C799	87-010-829-080		CAP, U 0.047-16
C803	87-018-047-080		CAP, CER 0.01-16V<HSS>
C812	87-012-286-080		CAP, U 0.01-25
C814	87-012-286-080		CAP, U 0.01-25<HSS>
C820	87-010-260-080		CAP, ELECT 47-25V
C821	87-012-286-080		CAP, U 0.01-25
C822	87-012-286-080		CAP, U 0.01-25
C823	87-012-286-080		CAP, U 0.01-25
C824	87-012-172-080		CAPACITOR CHIP U 10P CH<HSS>
C828	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25
C909	87-012-286-080		CAP, U 0.01-25<HSS>
C910	87-012-286-080		CAP, U 0.01-25<HSS>
C940	87-012-286-080		CAP, U 0.01-25<HSS>
C942	87-012-172-080		CAPACITOR CHIP U 10P CH<HSS>
C947	87-012-286-080		CAP, U 0.01-25<HSS>
C949	87-A10-039-080		C-CAP,U 470P-50 J CH<HSS>
C952	87-012-286-080		CAP, U 0.01-25<HSS>
C958	87-010-197-080		CAP, CHIP 0.01 DM<HSS>
C959	87-010-831-080		C-CAP,U,0.1-16F
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C961	87-012-170-080		C-CAP,U 8P-50 CH<EXCEPT HSS>
C962	87-010-401-080		CAP, ELECT 1-50V<HSS>
C963	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT HSS>
CF801	87-008-423-010		CERAMIC FILTER, SFE10.7<HSS>
CF801	87-008-261-010		FILTER, SFE10.7MA5-A<EXCEPT HSS>
CF802	82-785-747-010		CF MS2 GHY R<HSS>
CF802	87-008-261-010		FILTER, SFE10.7MA5-A<EXCEPT HSS>
CN301	87-009-036-010		CONNECTOR, 8P PH V WHT
⚠F101	87-035-457-010		FUSE,3.15A 250V TW/C
FC1	87-033-213-080		CLAMP, FUSE
FC2	87-033-213-080		CLAMP, FUSE
FFE801	A8-6ZA-19C-170		6ZA-1 YFEENC<HSS>
FFE801	A8-6ZA-19F-170		6ZA-1 YFEVNC<VJS>
FFE801	A8-8ZA-193-070		8ZA-1 YFEUNC<HRJ,HA,HTS,HC1>
J101	87-A60-354-010		JACK,PIN 2P MSP -242V-05
J102	87-A60-754-010		TERMINAL,SPK 4P MSP-154V-05
J103	87-A60-420-010		JACK,3.5 ST (MSC)
J104	87-099-608-010		JACK, DC HEC3800<HSS>
J801	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02 <EXCEPT HSS>
J801	87-A60-880-010		TERMINAL,ANT-PAL 2P MSP-313V-0 <HSS>
L101	87-005-366-010		COIL, 1UH
L102	87-005-366-010		COIL, 1UH
L104	87-005-676-080		COIL,2.2UH K LF5.0S
L301	88-CL6-609-010		COIL,BIAS 8CL6
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	87-A90-733-010		FLTR,PCFAZH-450 (TOK)
L781	87-005-847-080		COIL,2.2UH(CECS)<HSS>
L832	87-005-847-080		COIL,2.2UH(CECS)<HSS>
L941	87-A50-020-010		COIL,ANT LW(COI)<HSS>
L942	87-A50-019-010		COIL,OSC LW(COI)<HSS>
L981	87-NF4-650-010		COIL,AM PACK 4N(TOK)<EXCEPT HSS>
L981	87-NF4-651-110		COIL,AM PACK2N(TOM)<HSS>
⚠PR100	87-A90-091-080		PROTECTOR,2A 491
SW301	8Z-CL8-668-010		SW,RP ZCL8
TC942	87-011-164-010		CAPACITOR,TRIMMER 30P<HSS>
WH101	87-099-043-010		CONN 2P EH
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

C201	87-010-375-080		CAP,E 330-10 SME
C202	87-012-350-080		C-CAP,1-25 F
C203	87-010-197-080		CAP, CHIP 0.01 DM
C205	87-010-178-080		CHIP CAP 1000P
C208	87-010-197-080		CAP, CHIP 0.01 DM
C209	87-010-196-080		CHIP CAPACITOR,0.1-25
C210	87-010-196-080		CHIP CAPACITOR,0.1-25
C211	87-010-314-080		C-CAP,S 22P-50V
C212	87-010-318-080		C-CAP,S 47P-50 CH
C213	87-010-154-080		CAP CHIP 10P
C214	87-012-149-080		C-CAP,S 30P-50 CH
C215	87-010-312-080		C-CAP,S 15P-50 CH
C216	87-010-400-080		CAP, ELECT 0.47-50V
C217	87-010-196-080		CHIP CAPACITOR,0.1-25
CN201	87-099-720-010		CONN,30P TYK-B(P)
CN202	87-A60-404-010		CONN,3P TKX-P03P-F1

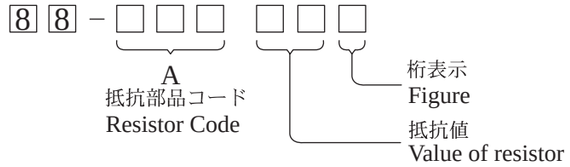
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
L206	87-003-098-080		COIL,2.2UH
LCD201	8Z-CL8-665-110		LCD,ZCL-8
S200	87-A90-095-080		SW,TACT EVQ11G04M
S201	87-A90-095-080		SW,TACT EVQ11G04M
S202	87-A90-095-080		SW,TACT EVQ11G04M
S203	87-A90-095-080		SW,TACT EVQ11G04M
S205	87-A90-095-080		SW,TACT EVQ11G04M
S207	87-A90-095-080		SW,TACT EVQ11G04M
S208	87-A90-095-080		SW,TACT EVQ11G04M
S213	87-A90-095-080		SW,TACT EVQ11G04M
S214	87-A90-095-080		SW,TACT EVQ11G04M
S216	87-A90-095-080		SW,TACT EVQ11G04M
S217	87-A90-095-080		SW,TACT EVQ11G04M
S218	87-A90-095-080		SW,TACT EVQ11G04M
S220	87-A90-095-080		SW,TACT EVQ11G04M
X201	87-030-364-010		VIB,XTAL 32.768K CT
X202	87-A70-185-080		VIB,CER 5.76MHZ TF21
CD C.B			
C500	87-016-459-040		CAP,E 470-10 SMG
C502	87-016-459-040		CAP,E 470-10 SMG
C503	87-016-459-040		CAP,E 470-10 SMG
C505	87-010-196-080		CHIP CAPACITOR,0.1-25
C507	87-010-196-080		CHIP CAPACITOR,0.1-25
C510	87-010-197-080		CAP, CHIP 0.01 DM
C513	87-010-196-080		CHIP CAPACITOR,0.1-25
C514	87-010-196-080		CHIP CAPACITOR,0.1-25
C515	87-012-157-080		C-CAP,S 330P-50 CH
C516	87-010-545-080		CAP, ELECT 0.22-50V
C525	87-010-176-080		C-CAP,S 680P-50 SL
C528	87-012-156-080		C-CAP,S 220P-50 CH
C529	87-010-545-080		CAP, ELECT 0.22-50V
C530	87-012-140-080		CAP 470P
C531	87-010-374-080		CAP, ELECT 47-10V
C532	87-010-401-080		CAP, ELECT 1-50V
C533	87-010-184-080		CHIP CAPACITOR 3300P(K)
C534	87-010-197-080		CAP, CHIP 0.01 DM
C535	87-010-145-080		C-CAP,S 1P-50 CH
C536	87-010-312-080		C-CAP,S 15P-50 CH
C537	87-010-309-080		C-CAP,1000P-50 CH
C538	87-010-196-080		CHIP CAPACITOR,0.1-25
C539	87-010-404-080		CAP, ELECT 4.7-50V
C540	87-010-196-080		CHIP CAPACITOR,0.1-25
C541	87-010-405-080		CAP, ELECT 10-50V
C542	87-010-369-080		C-CAP,S 0.033-25 K B
C543	87-010-405-080		CAP, ELECT 10-50V
C545	87-010-197-080		CAP, CHIP 0.01 DM
C546	87-010-374-080		CAP, ELECT 47-10V
C547	87-010-263-080		CAP, ELECT 100-10V
C548	87-010-248-080		CAP, ELECT 220-10V
C549	87-010-198-080		CAP, CHIP 0.022
C550	87-010-248-080		CAP, ELECT 220-10V
C551	87-010-178-080		CHIP CAP 1000P
C552	87-010-197-080		CAP, CHIP 0.01 DM
C553	87-010-374-080		CAP, ELECT 47-10V
C555	87-010-403-080		CAP, ELECT 3.3-50V
C556	87-010-197-080		CAP, CHIP 0.01 DM
C557	87-010-197-080		CAP, CHIP 0.01 DM
C558	87-010-197-080		CAP, CHIP 0.01 DM
C559	87-010-315-080		C-CAP,S 27P-50 CH
C560	87-010-263-080		CAP, ELECT 100-10V
C561	87-010-196-080		CHIP CAPACITOR,0.1-25
C562	87-010-196-080		CHIP CAPACITOR,0.1-25
C563	87-012-156-080		C-CAP,S 220P-50 CH
C564	87-010-197-080		CAP, CHIP 0.01 DM
C565	87-010-263-080		CAP, ELECT 100-10V
C566	87-010-196-080		CHIP CAPACITOR,0.1-25
C568	87-010-197-080		CAP, CHIP 0.01 DM
C570	87-010-197-080		CAP, CHIP 0.01 DM

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C571	87-010-248-080		CAP, ELECT 220-10V
C572	87-010-196-080		CHIP CAPACITOR,0.1-25
C573	87-010-197-080		CAP, CHIP 0.01 DM
C578	87-010-197-080		CAP, CHIP 0.01 DM
C579	87-010-263-080		CAP, ELECT 100-10V
C582	87-010-197-080		CAP, CHIP 0.01 DM
C583	87-010-405-080		CAP, ELECT 10-50V
C587	87-010-166-080		C-CAP,S 100P-50 SL
C589	87-010-166-080		C-CAP,S 100P-50 SL
C590	87-010-166-080		C-CAP,S 100P-50 SL
C591	87-010-166-080		C-CAP,S 100P-50 SL
C592	87-010-166-080		C-CAP,S 100P-50 SL
C593	87-010-197-080		CAP, CHIP 0.01 DM
C594	87-010-263-080		CAP, ELECT 100-10V
C596	87-010-404-080		CAP, ELECT 4.7-50V
C597	87-010-197-080		CAP, CHIP 0.01 DM
C598	87-010-197-080		CAP, CHIP 0.01 DM
C601	87-010-197-080		CAP, CHIP 0.01 DM
CN501	87-009-345-010		CONN,2P PH H
CN510	87-009-034-010		CONN,6P PH V
CN520	87-A60-248-010		CONN,16P H CFF1416
L501	87-005-647-080		COIL,10UH K LF5S
L502	87-005-659-080		COIL,100UH K LF5.0S
R503	87-029-019-010		RES, FUSEIBLE 1/2W-2.2
SFR501	87-A90-787-080		SFR,100K H HOKU
X501	87-A70-046-010		VIB,XTAL 16.934MHZ
LED C.B			
D941	87-A40-365-080		LED,L-1154 SGD
D942	87-A40-365-080		LED,L-1154 SGD
D943	87-A40-365-080		LED,L-1154 SGD
D944	87-A40-365-080		LED,L-1154 SGD
D945	87-A40-365-080		LED,L-1154 SGD
D946	87-A40-365-080		LED,L-1154 SGD
D947	87-A40-365-080		LED,L-1154 SGD
D948	87-A40-365-080		LED,L-1154 SGD
D949	87-A40-365-080		LED,L-1154 SGD
AC C.B			
C181	87-010-197-080		CAP, CHIP 0.01 DM
C182	87-010-197-080		CAP, CHIP 0.01 DM
CNA101	8A-CLA-630-010		CONN ASSY,2P PT
⚠SW1	87-A90-178-010		SW SL1-1-2<HRJ,HA,HTS,HC1>
⚠T1	87-A60-317-010		TERMINAL, 1P MSC
⚠T2	87-A60-317-010		TERMINAL, 1P MSC
MOTOR C.B			
M2	9X-262-576-910		MOTOR GEAR ASSY
PIN3	91-564-722-110		CONNECTOR 6P
SW1	91-572-085-120		LEAF SW

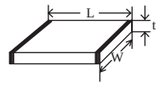
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

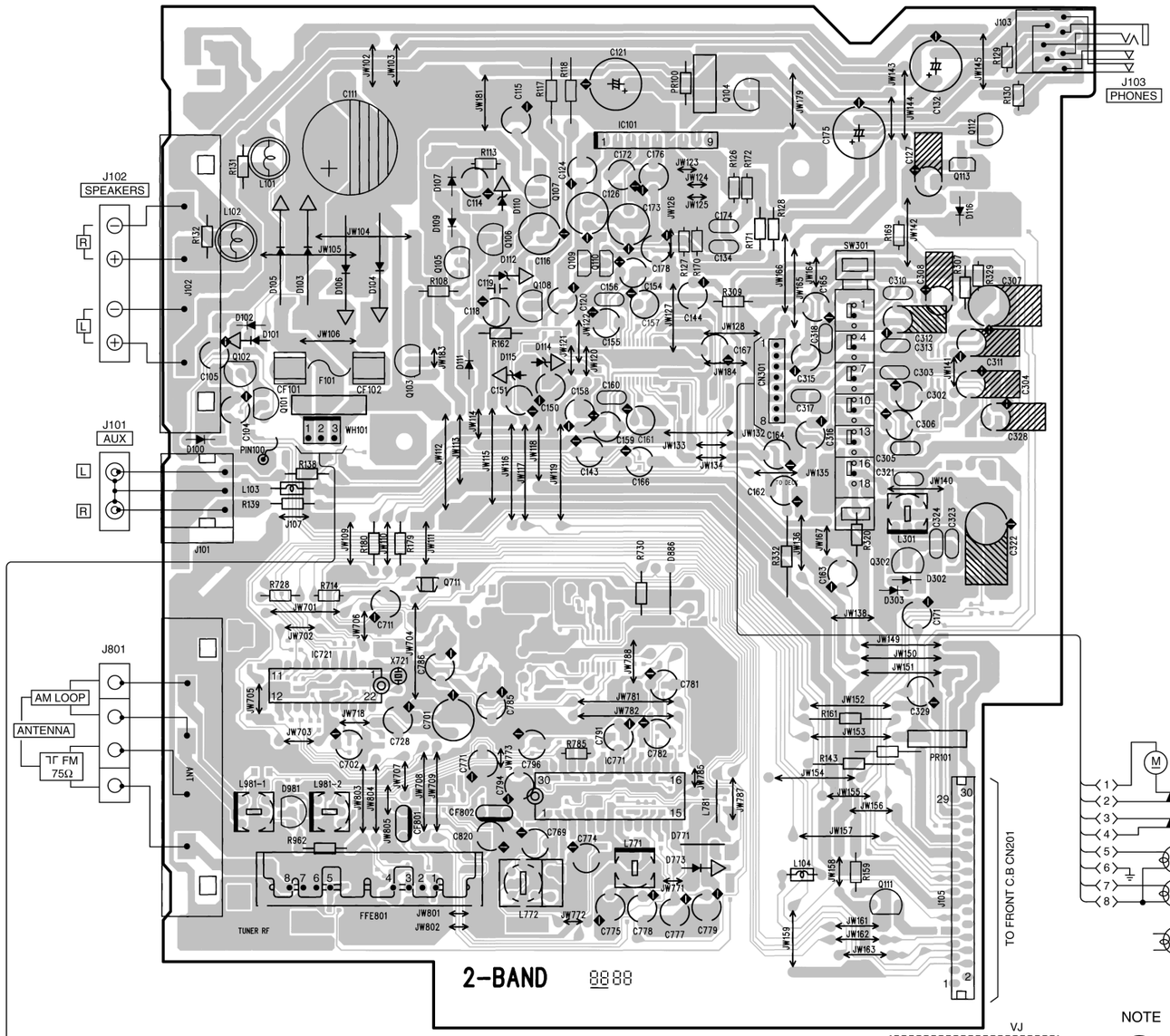
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

MAIN C.B (INSERTED PARTS)



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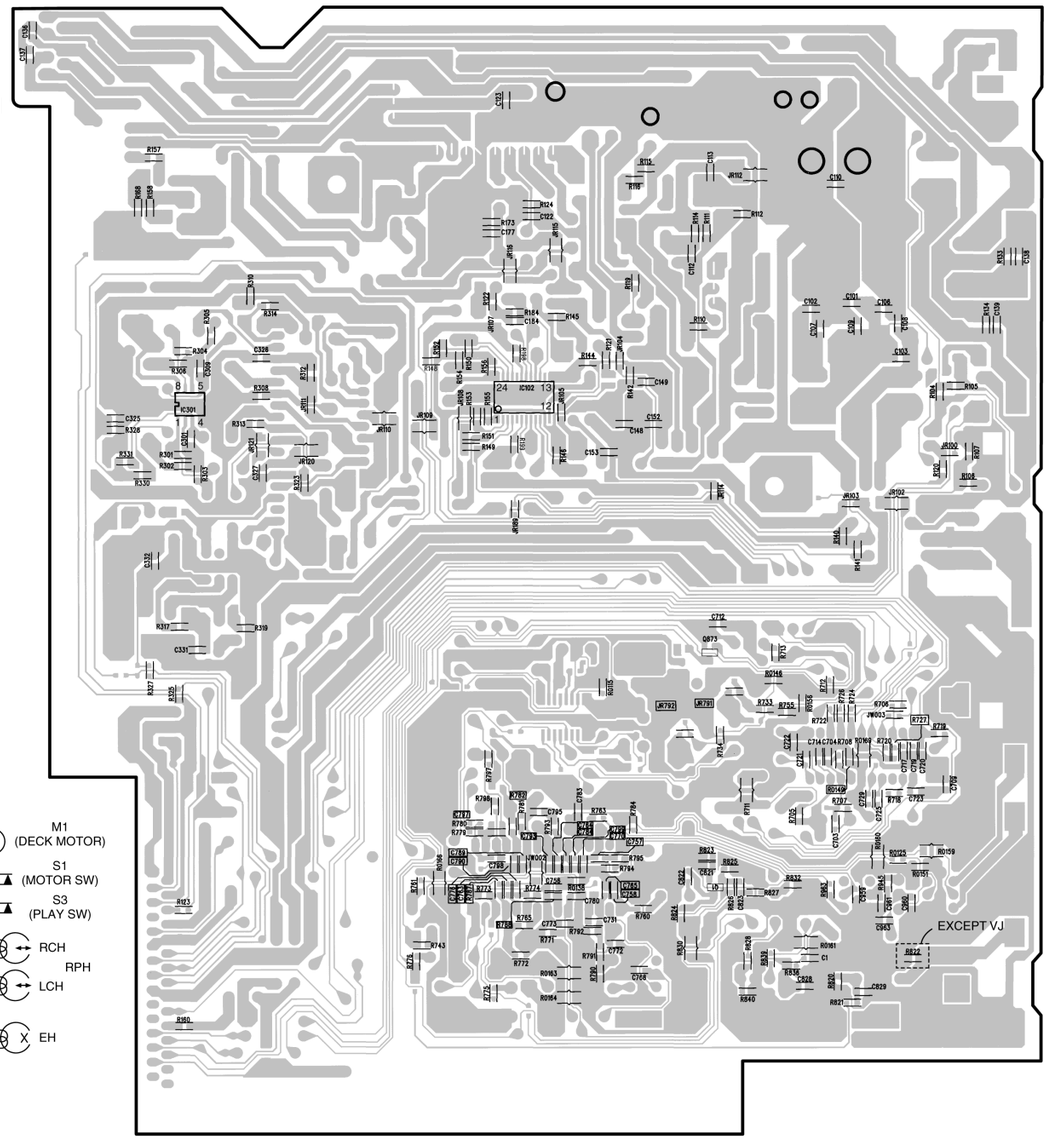
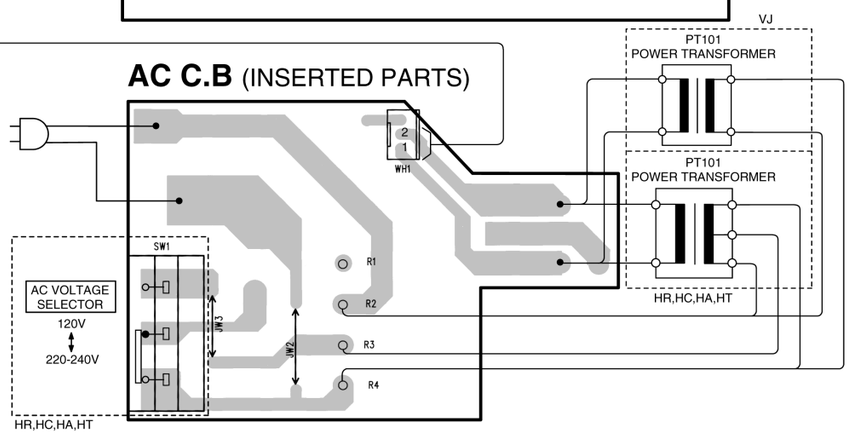
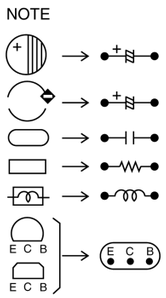


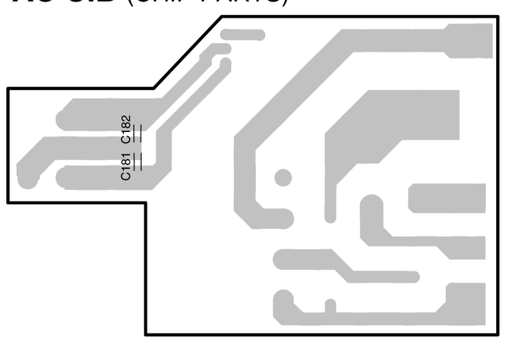
AC C.B (INSERTED PARTS)



NOTE



AC C.B (CHIP PARTS)



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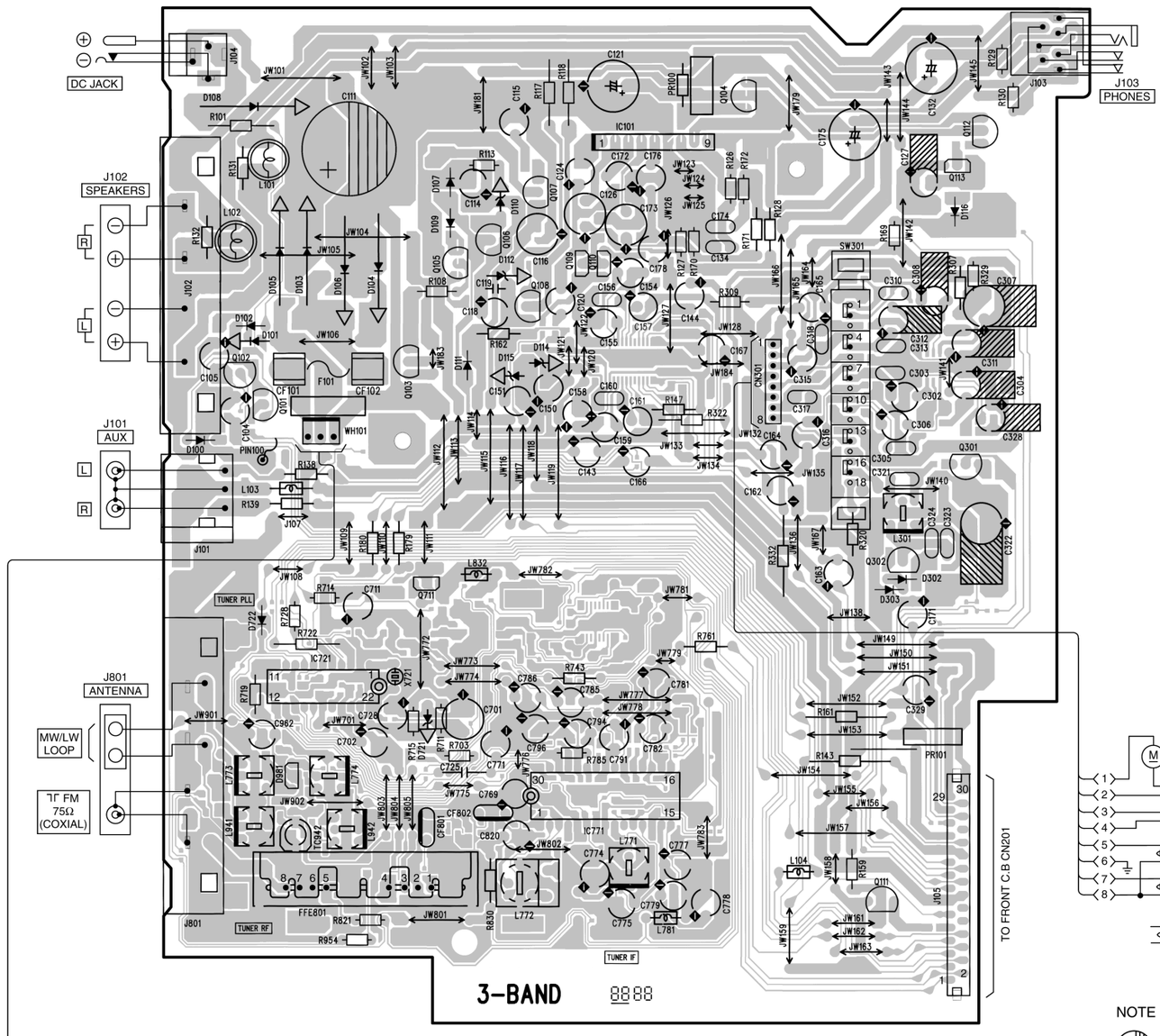
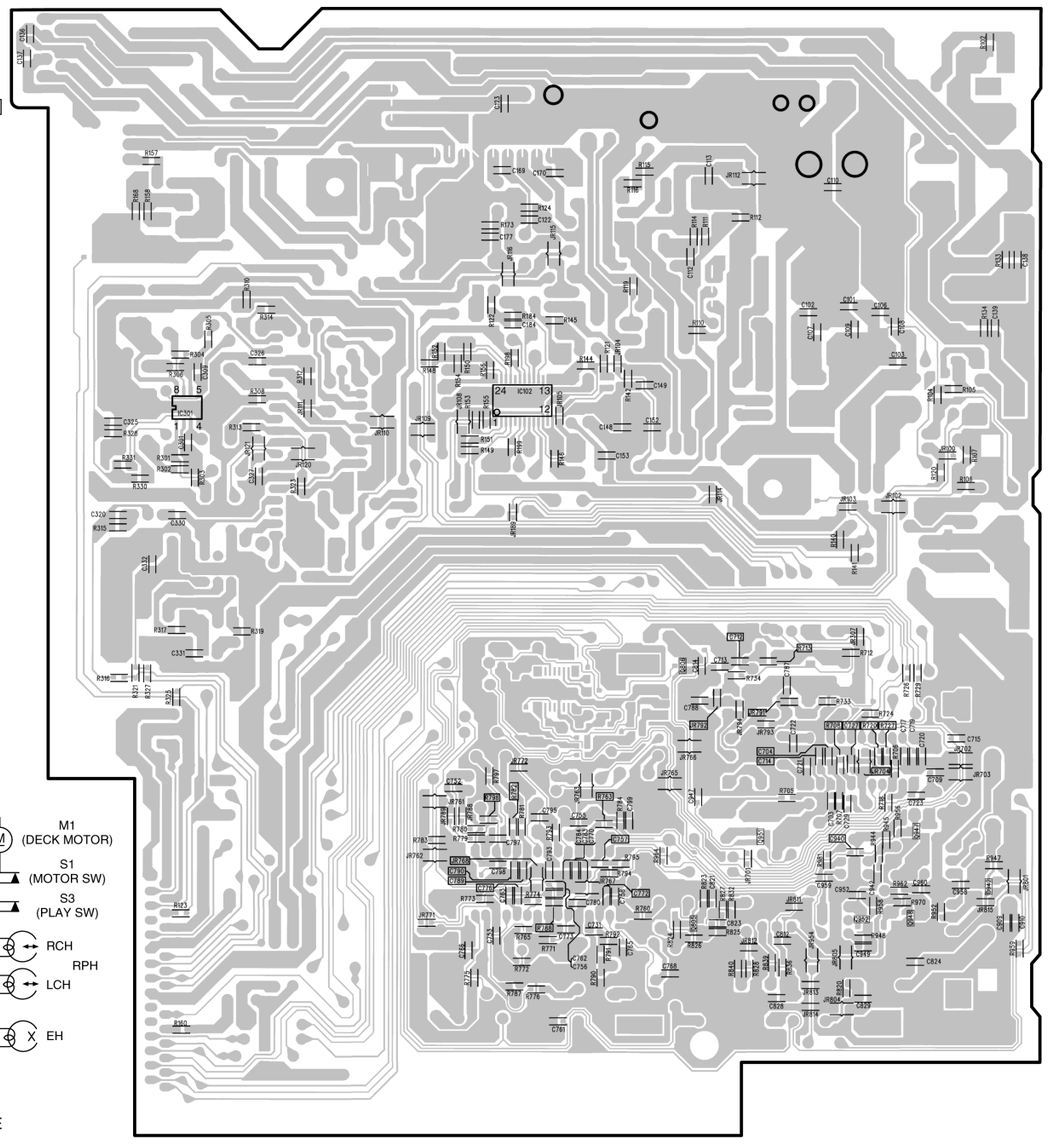
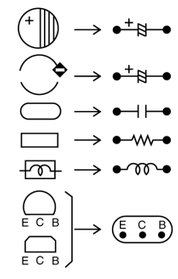


MAIN C.B (CHIP PARTS)



M1 (DECK MOTOR)
S1 (MOTOR SW)
S3 (PLAY SW)
RCH
RPH
LCH
EH

NOTE



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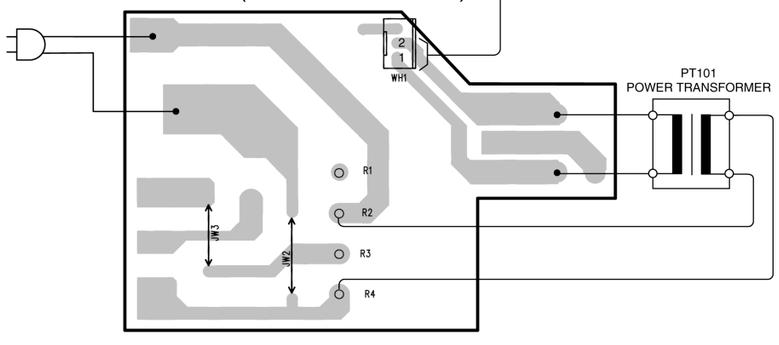
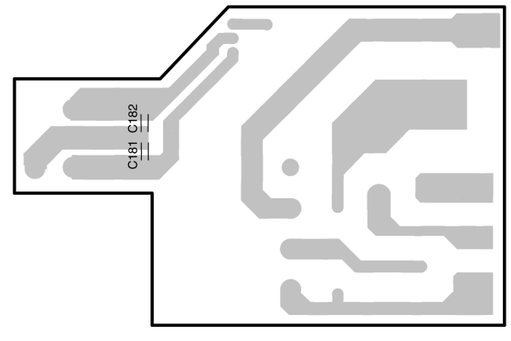


AC C.B (CHIP PARTS)



SCHEMATIC DIAGRAM-1 (MAIN 1/2)

MAIN C.B (1/2)

TO MAIN C.B 2/2

TWBASE CLK DATA TU/IFC MO/ST TUON PLLCE

BEAT VM TU-L TU-R A-GND +5V

HS

L104 2.2uH

A03 A04 A09 A05 A06 A07 A08

A(00:09)

J105 30P BLK TKY-B(P)

TO FRONT C.B CN201

I-RDSIG I-RDCL I-RDDT I-TWBASE O-TUCL I-AC/DC I-TUNE/IFC I-STEREO O-TU-ON O-TUCE VDD5V VDD5V I-TPREC I-TPPLAY I-HOLD O-DATA O-SCONTL D-GND D-GND O-SCONTM VM O-MUTE O-PCONT A-GND CD-LIN A-GND CD-RIN

R159 3.3K

R160 10K

Q111 KTC3198GR INV.

R161 3.3K

R332 2.2K

1A 60V

C1 C2 C3 R322 390K

IC301 CASSETTE PER AMP

R326 22K

SW301(3/6) SW.RP

C316 4.7/50

C302 1/50

R331 100K

C301 100P

R303 4.7K

C305 0.027(M)

R323 1K

R324 100K

R302 47

R301 120K

C306 10/50

R329 2.2K

IC301 BA4560

R307 220 1/4W

D301 JW

C307 220/10

C317 1500P(M)

C303 1000P(M)

C304 22/50

R325 22K C329 22K R327 22K

R313 1.2K

C327 1000P C325 1000P C328 1000P C313 1000P(M) C311 22/50

R330 100K R328 2.2K

R308 1.2K C326 1000P

R312 15K

C318 1500P(M)

C312 1/50

C308 10/50

R304 120K

C310 0.027(M)

R305 4.7K

R314 1K

R306 47

C309 100P

R310 100K

SW301(2/6) SW.RP

C315 4.7/50

R309 390K

R320 330 1/4W

SW.RP SW301(6/6)

R321 10K

R317 10K

L301

C321 1200P(M)

C323 0.01(M)

C324 4700P(M)

C330 470P

BEAT CUT

Q301 SS8050C BEAT CUT

REC AC BIAS

2SC1815Y Q302 BIAS OSC

C332 0.01

C322 100/16

R319 100

1000P C331

D303 1SS133

D302 1SS133

TO/FORM TAPE MECHA CN301

M1 (DECK MOTOR) S1 MOTOR SW S3 PLAY SW R CH MA1 L CH MA2

C165 10/50

R180 0

C167 4.7/50

C163 10/50

R145 2.7K

C153 100P

C156 0.22/50

C155 0.015(M)

C154 0.22/50

R148 18K R198 68K

C157 4.7/50

IC102 M62495FP

TU-R TU-L TA-R TA-L CD-R CD-L AUX R AUX L L RECOUT R L SEND RETURN R TREBLE BASS L OUT R GND VDD VSS CONT

R150 22K R152 22K R154 22K R156 22K

R149 22K

R151 22K R155 22K R153 22K

C161 4.7/50 C159 0.22/50 C156 0.22/50

R147 18K R199 68K

0.015(M) C160

R146 2.7K

C162 10/50 C166 4.7/50 C164 10/50

R179 0

R142 470

C148 0.01

C149 0.01

D115 MTZJ5.1B

C152 2200P

R144 1.2K R143 1.5K

C150 100/10 MTZJ2.2B D114

C151 100/10

C143 1/50

C144 1/50

IC102 FUNCTION SWITCH

R162 100 1/2W

C185 0.068 R185 1K

R184 1K C184 0.068

R121 1/50 C120 Q109 DTC343TS

137 MODEL:1K 157 MODEL:820

R123 10K

R122 137 MODEL:1K 157 MODEL:820

C178 1/50 Q110 DTC343TS

C171 4.7/50

MAIN MUTE Q109/Q110

HS

C170 0.01

C124 2.2/50

R124 1K C122 0.015

R173 1K C177 0.015

C176 2.2/50

C169 0.01

C172 22/35

POWER AMP

IC101 TDA2007A

VCC NFL OUTL LIN RIN OUTR NFR GND

R169 10K

C128 220/35

R127 39

R171 1.2K

R170 39

C173 220/25

C174 0.1M C134 0.1M

R172 2.2 R126 2.2

R120 33K

C175 1000/16

C132 1000/16

D102 1SS133

D101 1SS133

R104 47K

C103 0.01

C102 0.01 C101 0.01

C110 0.01 C111 4700u/25V

F101 3.15A 250V

C181 0.01 C182 0.01

AC C.B (1/2)

WH101

J101 JACK. PIN 3P MSP

L AUX R

10K R140 10K R141

47K R138 47K R139

L103 JW

C147 0.01

HEAT SINK

Q104 2SB1370E REG

Q112 KTA1266GR REG

C121 137 MODEL:330/25V 157 MODEL:470/35V

R157 6.8K

R168 22K

C127 220/10

Q113 DTC144ES SW

PR100 2K/60V

C104 4.7/50

22K R106

1SS133 D100

J102 IMP:4ohm L SPEAKERS R

C138 0.01 C139 0.01

R133 4.7K R134 4.7K

HOLD DET KTC3198GR Q102

HOLD DET Q101 KTC3198GR

22K R105

C105 3.3/50

C137 0.01

R130 100

C136 0.01

R129 100

1uH L101 10 1/4W R131

1uH L102 10 1/4W R132

J101 JACK. 3.5 ST PHONES

D108 1N5402

D103 1N5402 D106 1N5402

D105 1N5402 D104 1N5402

C108 0.022 C109 0.022

C108 0.022 C107 0.022

R101 22K

R102 22K

HS,VJ

PT101

230V 50Hz

AC C.B(2/2)

120/220-240V 50/60Hz

120V 220-240V

AC VOLTAGE

SW1

PT101

J104 JACK.DC 5 9 BLK

AC C.B (2/2)

HR,HC,HA,HT

VDD REGULATOR

VCC REGULATOR

VM REGULATOR

R118 150 1/4W(FUSE RES)

Q108 2SD1381F REG

D112 MTZJ6.2B

C119 0.01 C118 100/10

D111 1SS133

Q107 KTC3198GR REG

C116 220/16

R116 100

C115 100/16

R115 330

C114 47/50

C113 0.01uF

R113 470

D110 MTZJ10B

C112 470P

R112 10K

POWER CONT

Q106 KTC3198GR

R114 220

D109 1SS133

R111 4.7K

D107 1SS133

Q103 2SB1370E REG

R108 470

POWER ON/OFF Q105 KTC3198GR

R110 68

D108 1N5402

HS

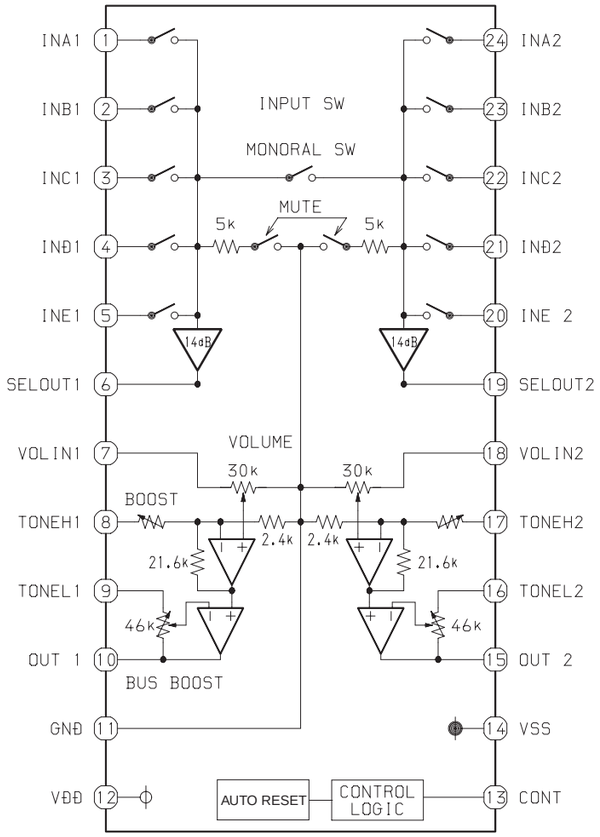
SIGNAL

: PB/FM

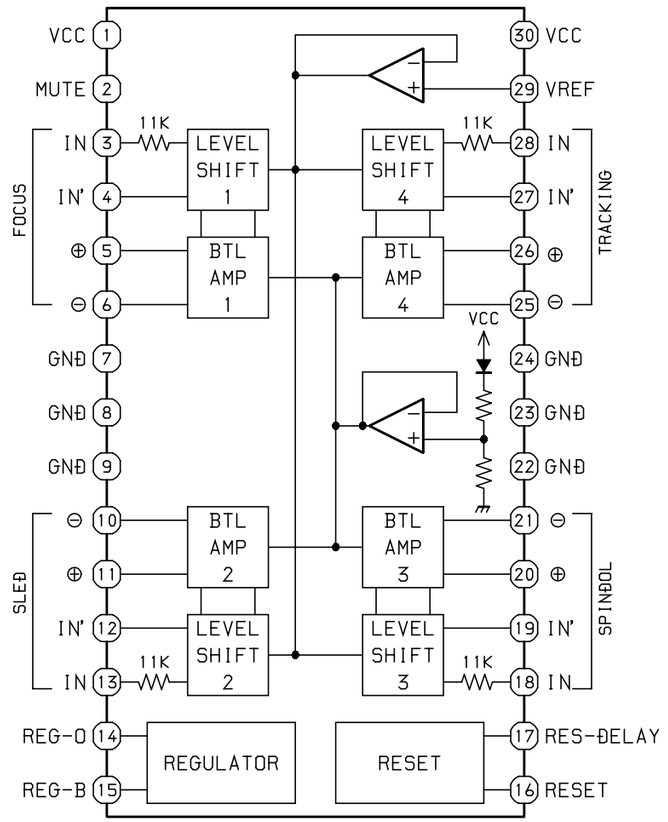
: REC/AM

IC BLOCK DIAGRAM

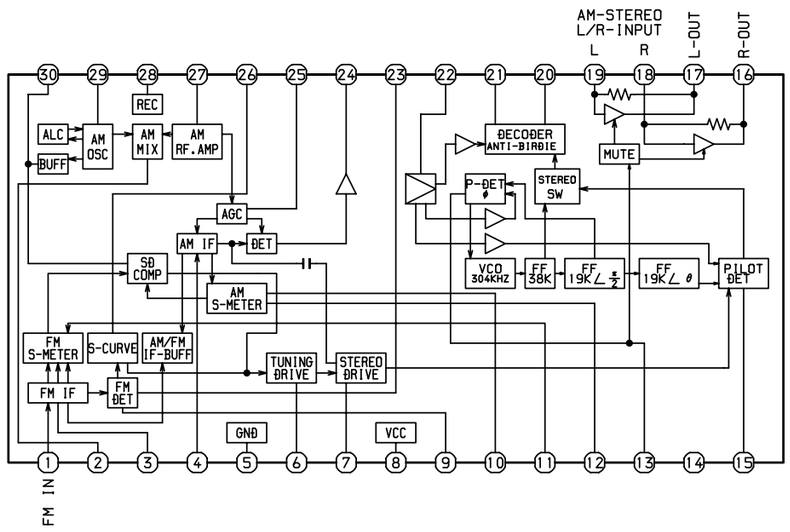
IC, M62495AFP



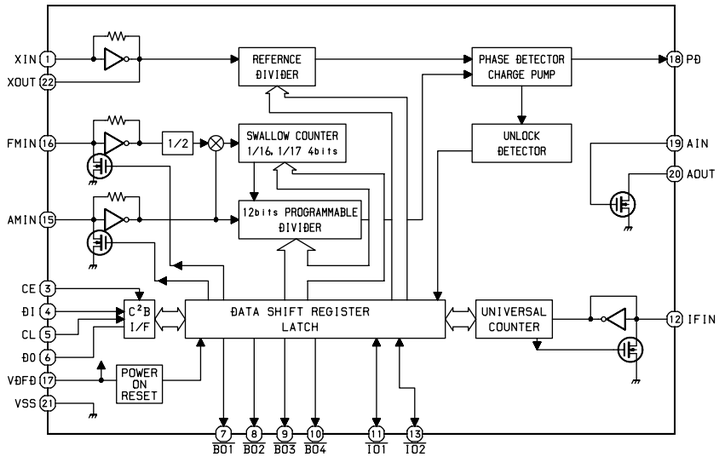
IC, LA6541D



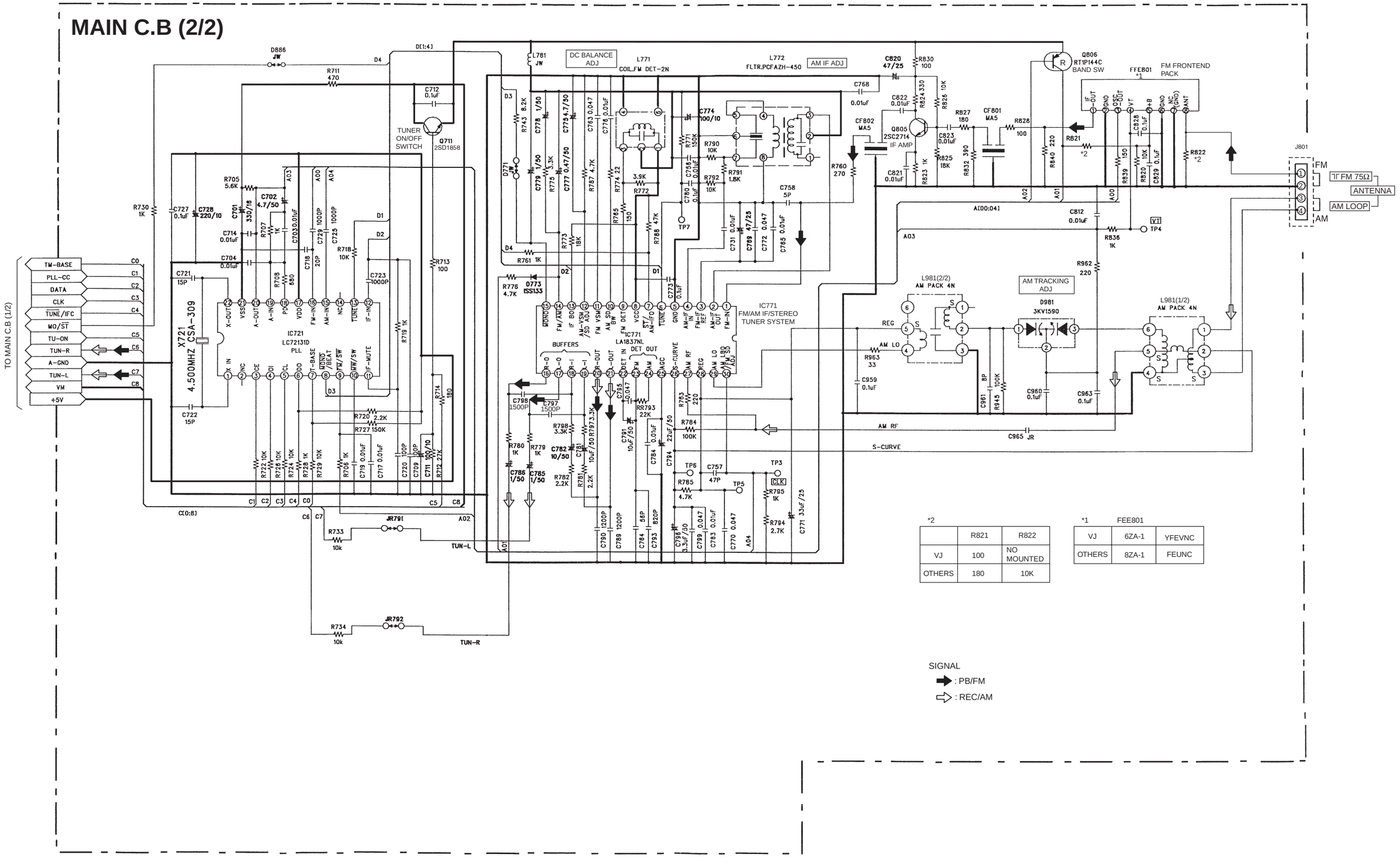
IC, LA1837NL



IC, LC72131D



MAIN C.B (2/2)



*2

	R821	R822
VJ	100	NO MOUNTED
OTHERS	180	10K

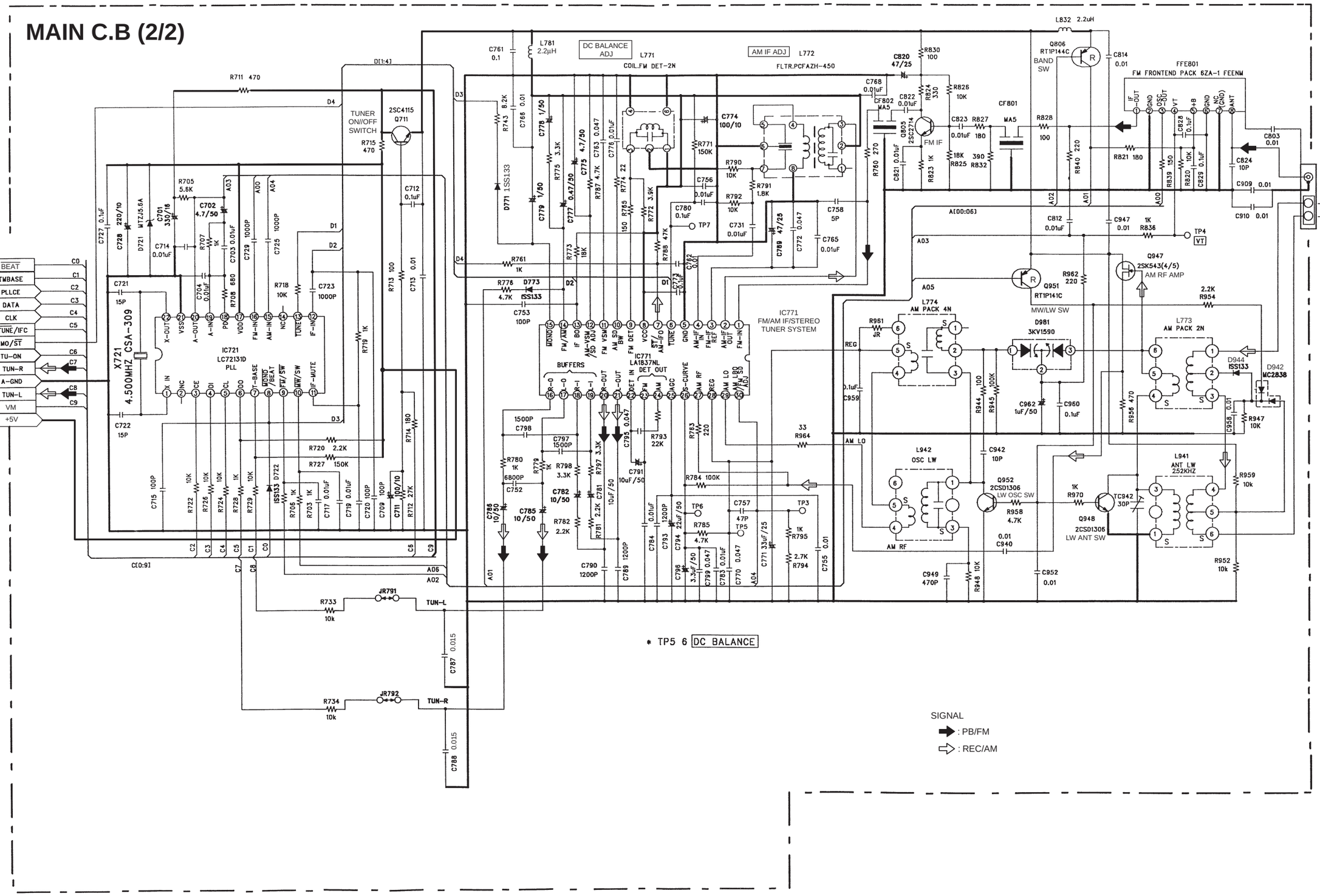
*1 FEE801

VJ	6ZA-1	YFEVNC
OTHERS	8ZA-1	FEUNC

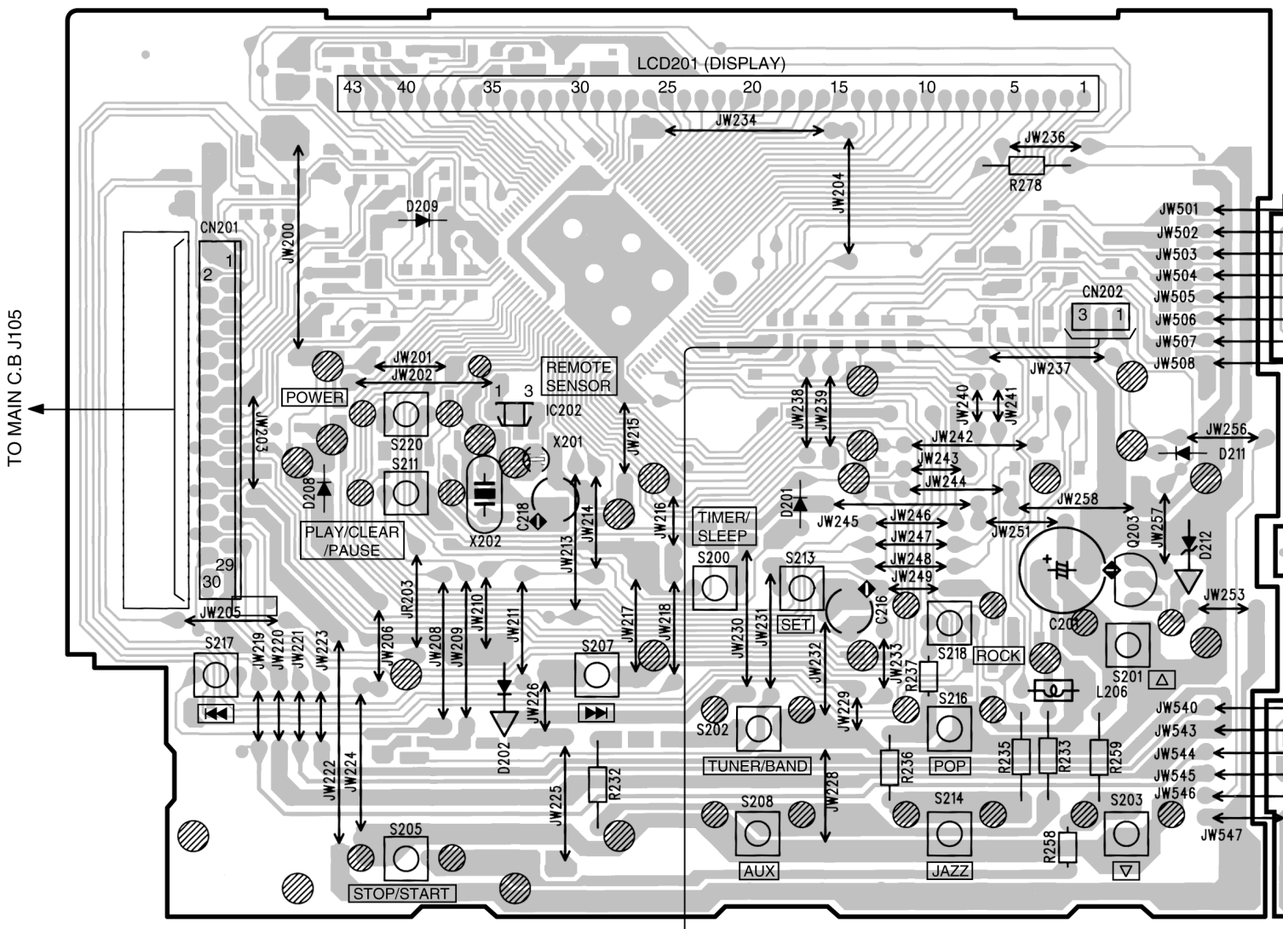
SIGNAL

: PB/FM

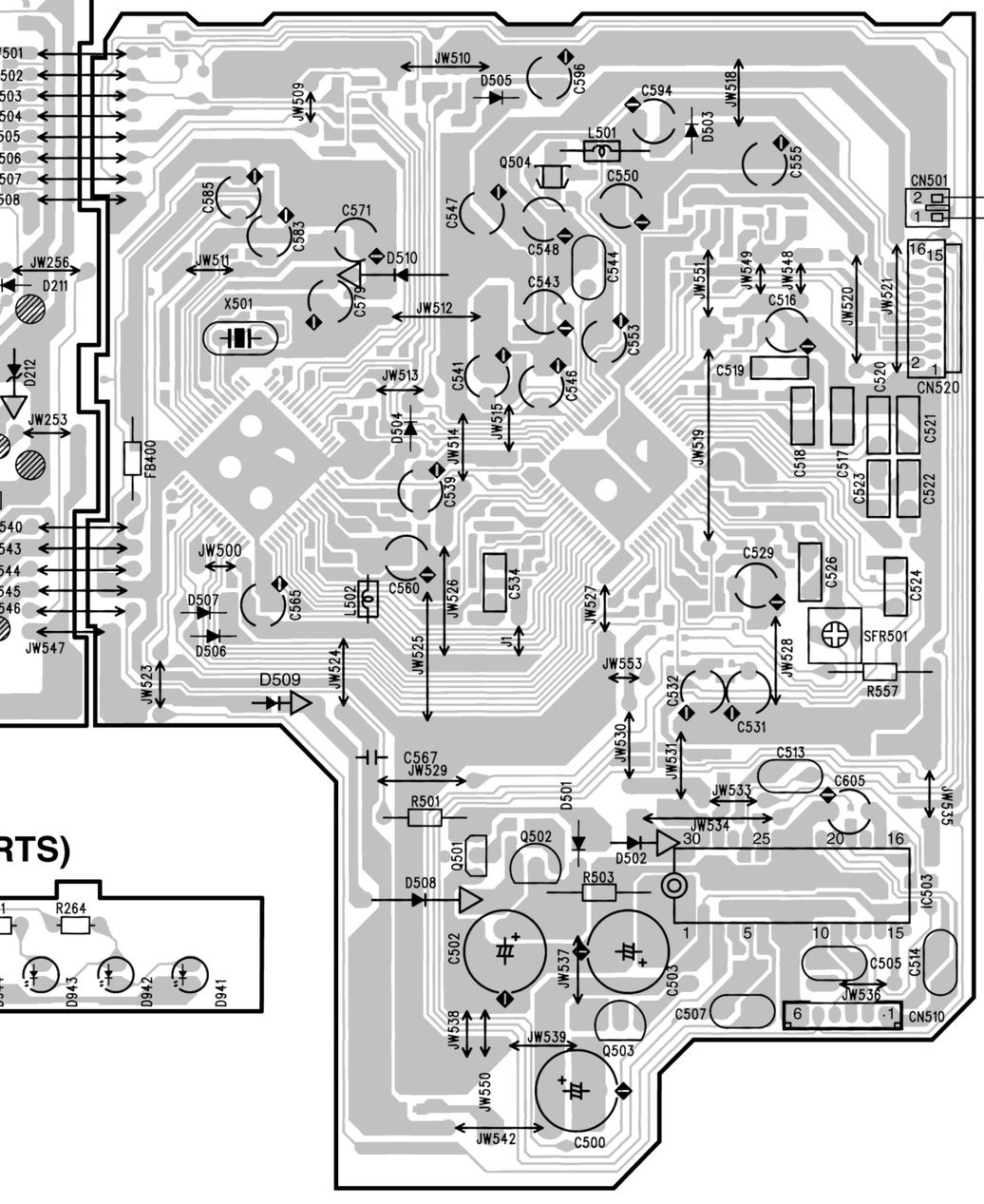
: REC/AM


MAIN C.B (2/2)
TO MAIN C.B (1/2)
BEAT
TMBASE
PLLCE
DATA
CLK
TUNE/IFC
MO/ST
TU-ON
TUN-R
A-GND
TUN-L
VM
+5V
IC721
LC72131D
PLL
X721
4.500MHZ
CSA-309
IC771
FM/AM IF/STEREO
TUNER SYSTEM
IC771
LA1837NL
DET OUT
BUFFERS
TUNER
ON//OFF
SWITCH
2SC4115
Q711
DC BALANCE
ADJ
L771
COIL.FM DET-2N
AM IF ADJ
L772
FLTR.PCFAZH-450
L781
2.2µH
L832 2.2uH
Q806
RT1P144C
BAND
SW
FFE801
FM FRONTEND PACK 6ZA-1 FEENM
FM IF
Q803
2SC2714
Q947
2SK543(4/5)
AM RF AMP
Q951
RT1P141C
MW/LW SW
L774
AM PACK 4N
L773
AM PACK 2N
D981
3KV1590
D944
1SS133
D942
MC2838
L942
OSC LW
Q952
2CSD1306
LW OSC SW
Q948
2CSD1306
LW ANT SW
L941
ANT LW
252KHZ
AM RF
AM LO
REG
J801
ANTENNA
FM 75Ω
MW/LW
LOOP
TP4
VT
TP7
TP6
TP5
TP3
JR791
JR792
TUN-L
TUN-R
* TP5 6 DC BALANCE
SIGNAL
: PB/FM
: REC/AM

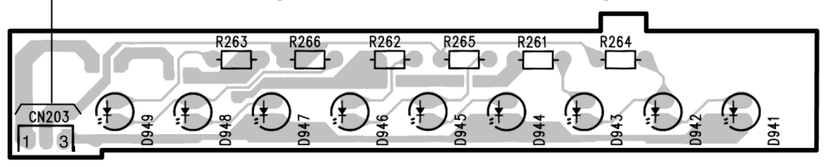
FRONT C.B (INSERTED PARTS)



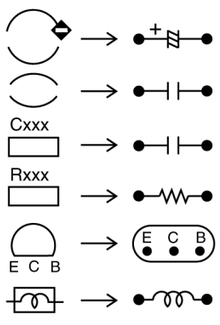
CD C.B (INSERTED PARTS)



LED C.B (INSERTED PARTS)



NOTE

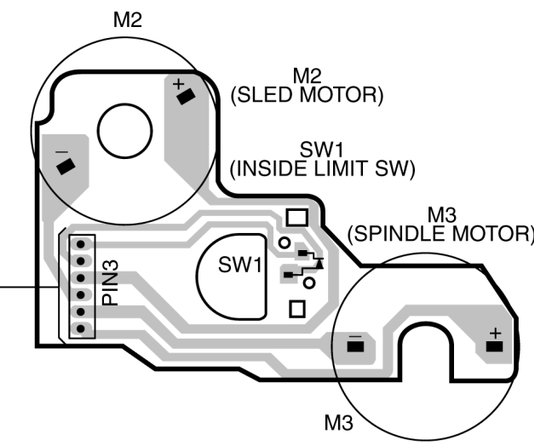


CD C.B (CHIP PARTS)

FRONT C.B (CHIP PARTS)

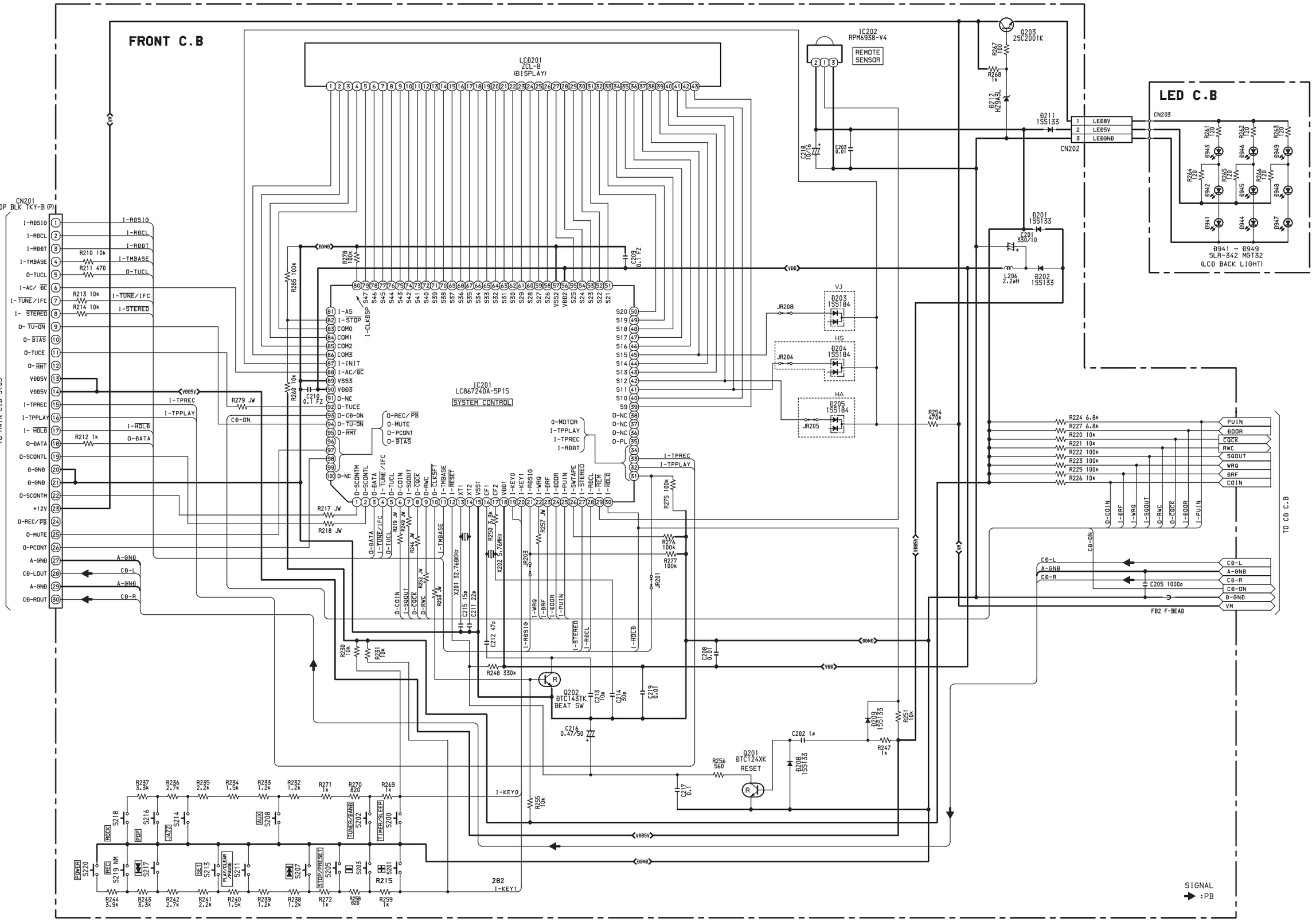
LED C.B (CHIP PARTS)

MOTOR C.B

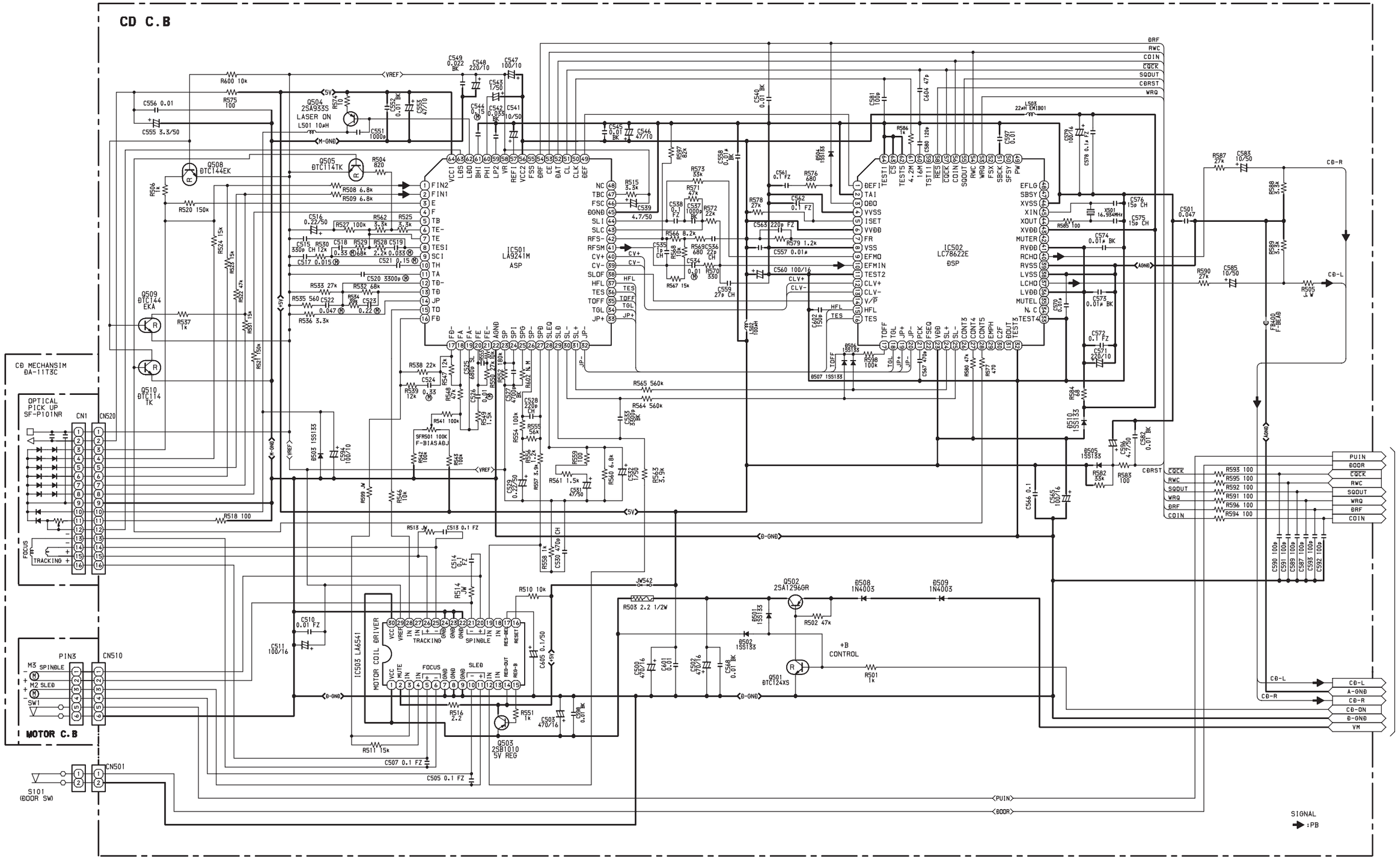


OPTICAL
PICK UP
SF-P101NR

SCHEMATIC DIAGRAM-4 (FRONT)



SCHEMATIC DIAGRAM-5 (CD)



VOLTAGE CHART

IC101 TDA2007A (V)

PIN	1	2	3	4	5	6	7	8	9
TU	1.4	0.7	10	0.7	1.4	GND	8.7	18.2	8.8
CD	1.4	0.7	10	0.7	1.4	GND	8.7	18.2	8.8

IC102 M62495AFP (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12
TU	2.39	2.39	2.39	2.39	NC	2.39	2.4	2.39	2.4	2.4	2.4	5.3
TAPE	2.38	2.38	2.38	2.38	NC	2.38	2.4	2.38	2.4	2.4	2.38	5.33
CD	2.35	2.35	2.35	2.35	NC	2.35	2.4	2.35	2.4	2.4	2.35	5.29
PIN	13	14	15	16	17	18	19	20	21	22	23	24
TU	2.5	GND	2.42	2.4	2.39	2.39	2.4	NC	2.4	2.4	2.39	2.39
TAPE	2.49	GND	2.4	2.4	2.4	2.4	2.4	NC	2.4	2.4	2.4	2.38
CD	2.49	GND	2.4	2.4	2.4	2.4	2.4	NC	2.4	2.4	2.4	2.4

IC301 BA4560 (V)

PIN	1	2	3	4	5	6	7	8
TAPE	4.17	4.17	4.16	GND	4.16	4.17	4.2	8.69
REC	4.21	4.21	4.2	GND	4.2	4.21	4.2	8.68

IC721 LC72131D PLL (V)

PIN	1	2	3	4	5	6	7	8	9	10	11
FM	2.7	0	2.47	0.96	0.96	5.5	2	0	0.8	0	0
MW	2.7	0	0	0	0	5.5	2	0	9.1	0	0
LW	2.7	0	0	0	0	5.5	2	0	9.3	9.4	0
PIN	12	13	14	15	16	17	18	19	20	21	22
FM	0	9.09	NC	7.78	2.1	0	0	0	0	0	2.72
MW	0	9.1	NC	2.7	0	5.4	0.9	0.9	4.4	0	2.72
LW	0	9.3	NC	2.7	0	5.4	0.9	0.9	1.3	0	2.72

IC771 LA1837NL (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
FM	3.57	9.09	3.56	3.56	GND	0	0	9.09	9.1	1.3	2.5	0	0.48	8	8.04
MW	3.55	9.31	3.54	3.54	GND	9.17	5.5	9.31	9.3	1.3	0	0	0.48	4.97	5.59
LW	3.55	9.43	3.55	3.54	GND	9.29	5.5	9.43	9.4	1.3	0	0.29	0.49	5.05	5.68
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
FM	4.29	4.29	4.29	4.29	3.39	3.39	2.9	3.54	0	0	3.6	3.6	3.61	3.61	2.18
MW	4.27	4.27	4.27	4.27	3.36	3.36	2.8	2.7	0.7	0.7	3.55	3.54	3.6	3.6	1.8
LW	4.28	4.28	4.28	4.28	3.37	3.37	2.8	2.58	1	0.8	3.55	3.54	3.6	3.6	1.8

FM FFE801 (V)

PIN	1	2	3	4	5	6	7	8
FM	0	GN	0	VT	7.11	GN	GN	0
MW	0	GN	0	VT	0	GN	GN	0

IC501 LA9241M CD (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
dynamics	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.55
stafics	2.49	2.49	2.52	2.52	2.49	2.51	2.5	2.51	2.5	2.5	2.51	2.51	2.51	2.51	2.5
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
dynamics	2.5	2.5	2.5	2.5	2.57	2.5	GN	2.51	2.5	2.5	2.5	2.61	2.5	2.63	2.37
stafics	2.5	2.5	0	2.49	2.5	2.51	GN	0	0	2.5	2.52	2.5	2.51	2.5	2.3
PIN	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
dynamics	2.3	0	0	4.99	0	1.15	0	0	0	0	2.2	2.4	2.62	2.53	GN
stafics	2.3	0	0	4.94	4.82	0	0	4.92	0	0	1.6	2.4	2.58	2.5	GN
PIN	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
dynamics	2.5	2.5	NC	0	2.4	4.68	4.8	0	4.9	NC	5.01	2.53	2.54	2.3	2.4
stafics	2.51	2.51	NC	0	0	0	4.8	0	0	NC	0	2.51	2.51	0.95	0.96
PIN	61	62	63	64											
dynamics	2.2	3.63	0	0											
stafics	2.2	4.28	0	0											

IC502 LC78622E CD (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
dynamics	0	0	1.54	0	1.98	4.94	0.3	0	2.7	2.6	0	0	0	0	0
stafics	0	0	0	0	1.99	4.93	0	0	2.5	2.6	0	0	0	4.92	0
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
dynamics	1.75	0	4.98	0	0	2.45	NC	4.99	0	0	NC	4.98	0	NC	NC
stafics	0	4.94	4.94	0	0	2.52	NC	4.95	0	0	NC	4.93	0	NC	NC
PIN	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
dynamics	2.51	0	0	NC	NC	4.86	2.1	0	0	2.1	4.86	NC	5.01	2.01	2.46
stafics	0	0	0	NC	NC	4.82	2.1	0	0	2.1	4.82	NC	4.96	2.01	2.18
PIN	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
dynamics	0	NC	NC	NC	NC	0	NC	0.75	0	0	4.75	4.62	4.99	NC	2.03
stafics	0	NC	NC	NC	NC	0	NC	0	0	0	4.77	4.77	4.96	NC	2
PIN	61	62	63	64											
dynamics	2.35	0	0	0											
stafics	2.35	0	0	0											

IC503 LA6541 CD

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
dynamics	9.85	4.99	2.54	2.52	4.59	4.52	GN	GN	GN	4.5	4.6	2.52	NC	4.99	9.28
stafics	10.2	4.96	2.51	2.51	4.69	4.68	GN	GN	GN	4.7	4.67	2.51	NC	4.96	9.45
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
dynamics	4.98	4.89	NC	2.53	4.93	4	GN	GN	GN	4.5	4.45	NC	2.52	2.53	9.85
stafics	4.94	4.81	NC	2.51	4.74	4.63	GN	GN	GN	4.7	4.67	NC	2.51	2.51	10.2

IC201 LC867240A-5P15 CPU (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
TU	0	0	0	0	0	0	0.8	0	0	0	1.9	4.67	1.83	2.62	0
TAPE	0	0	0	0	0	0	0	0	0	2	1.9	4.66	1.61	2.65	0
CD	0	0	0	0	0	4.75	0	4.65	0	2	1.9	4.63	1.6	2.59	0
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
TU	2.18	2.33	4.82	4.91	4.91	2.4	0.8	0.96	4.9	0	4.91	0	0.61	4.91	5.34
TAPE	2.27	2.34	4.81	4.91	4.91	0	0.8	0.96	4.9	0.5	1.76	0	0	4.9	5.32
CD	2.21	2.31	4.79	4.88	4.88	0	0.2	0.91	4.9	1.9	2.44	0	0	4.87	5.29
PIN	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
TU	0.45	0	0	NC	NC	NC	NC	NC	2.4	2.4	2.4	2.49	2.4	2.48	2.48
TAPE	0	0	0	NC	NC	NC	NC	NC	2.5	2.4	2.42	2.46	2.42	2.44	2.43
CD	0	0	0	NC	NC	NC	NC	NC	2.3	2.3	2.3	2.3	2.3	2.3	2.3
PIN	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
TU	2.4	2.5	2.5	2.49	2.48	2.5	2.5	2.5	2.5	2.4	4.83	0	2.4	2.4	2.4
TAPE	2.4	2.4	2.4	2.4	2.4	2.4	1.7	1.9	2.5	2.4	4.79	0	2.4	2.4	2.4
CD	2.3	2.3	2.3	2.3	2.35	2.45	2.3	2.33	2.3	2.3	4.78	0	2.3	2.3	2.3
PIN	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
TU	2.5	2.5	2.5	2.47	2.41	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.48	2.48
TAPE	2.45	2.4	2.4	2.4	2.4	2.4	2.5	2.42	2.4	2.4	2.4	2.4	2.4	2.46	2.46
CD	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.35	2.36	2.3	2.3
PIN	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
TU	2.5	2.5	2.5	2.5	0	NC	4.9	2.48	2.5	2.5	2.5	2.94	5.29	0	4.83
TAPE	2.4	2.4	2.4	2.4	0	NC	0	2.4	2.4	2.4	2.4	3.54	5.29	0	4.81
CD	2.38	2.38	2.38	2.36	0	NC	4.8	2.4	2.4	2.4	2.4	2.05	5.26	0	4.79
PIN	91	92	93	94	95	96	97	98	99	100					
TU	NC	0	0	0	NC	NC	0	0.98	NC	NC					
TAPE	NC	0	0	4.75	NC	NC	0	0.99	NC	NC					
CD	NC	0	4.74	4.72	NC	NC	0	1.12	NC	NC					

Q101	KTC3198GR			Q102	KTC3198GR			Q103	2SB1370			Q105	C3198GR		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	0.6	0	0.05	dynamics	0.05	0	5.2	dynamics	12	19	18	dynamics	0.66	0.07	17.6
stafics (v)	0.6	0	0.05	stafics (v	0.05	0	5.2	stafics (v)	12	19	18	stafics (v	0.7	0.07	17.5

Q106	KTC3198GR			Q107	KTC3198GR			Q108	2SD1381F			Q104	2SB1370E		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	0.68	GN	0.96	TAPE	11.8	11	12	TU (V)	6.2	5.6	13.8	dynamics	18	18.7	18
stafics (v)	0.68	GN	0.96	CD (V)	11.8	11	12	CD (V)	6.2	5.6	13.8	stafics (v	18	18.7	18

Q112	KTA1266GR			Q113	DTC144ES			Q109	DTC343TS			Q110	DTC343TS		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	17.4	18	18	dynamics	8.2	GN	1.6	dynamics	0	0	0	dynamics	0	0	0
stafics (v)	17.4	18	18	stafics (v	8.2	GN	1.2	stafics (v)	1.4	0	0	stafics (v	1.35	0	0

Q111	KTC3198GR			Q301	2S8050C			Q302	2SC1815Y			Q201	DTC124XK		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
TU (V)	0.02	GN	0.09	PB(V)	0	GN	OS	PB(V)	0.4	GN	0.4	CD(V)	0	0	4.6
CD (V)	0.7	GN	0.09	REC(V)	1.56	GN	OS	REC(V)	1.9	GN	6.7	TU(V)	0	0	4.6

Q202	DTC143TK			Q203	2SC2001K			Q711	C4115						
PIN	B	E	C	PIN	C	B	E	PIN	B	E	C				
CD(V)	1.98	0	0	CD(V)	11.9	7.8	8.4	CD(V)	0	0	11.9				
TU(V)	1.98	0	0	TU(V)	11.9	7.8	8.4	TU(V)	9.6	10	11.9				

HS

Q805	2SC2714			Q806	RTIP144C			Q951	RTIP141C			Q947	2SK543		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
FM(V)	6	5.2	7.7	FM(V)	0.8	9.1	9	FM(V)	9.5	9.4	0	FM(V)	1.2	1.7	9.5
AM(V)	6	5.3	7.8	AM(V)	0	9.3	0	AM(V)	1.9	9.6	9.6	AM(V)	1.1	1.7	9.7

HS

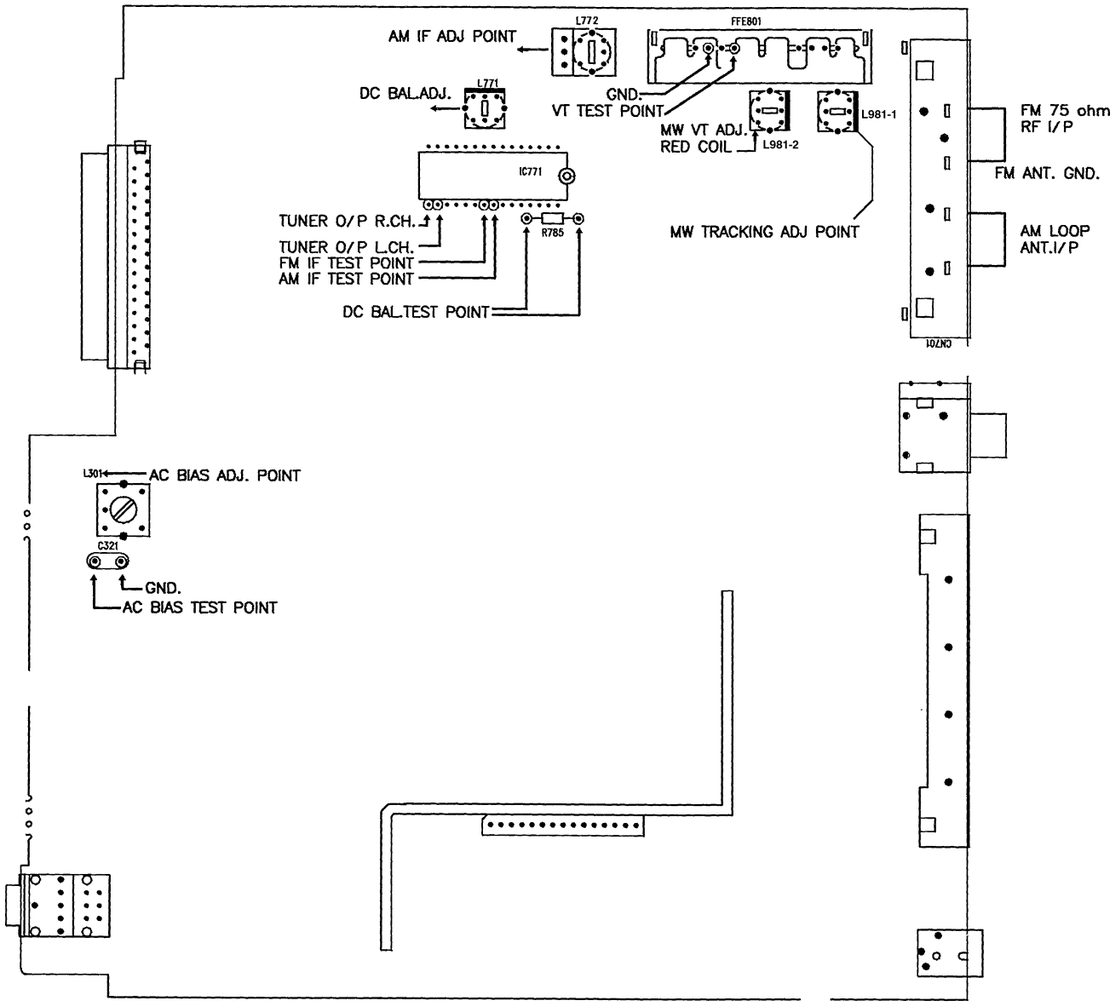
Q952	2SD1306			Q948	2SD1306			Q501	DTC124XS			Q502	2SA1296GR		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
MW(V)	1.86	1.2	1.2	MW(V)	1.92	1.2	1.2	dynamics	4.5	0	0.2	dynamics	9.5	10.3	10.2
LW(V)	0	1.1	1.1	LW(V)	0	1.1	1.1	stafics (v)	4.5	0	0.2	stafics (v	9.6	10.3	10.3

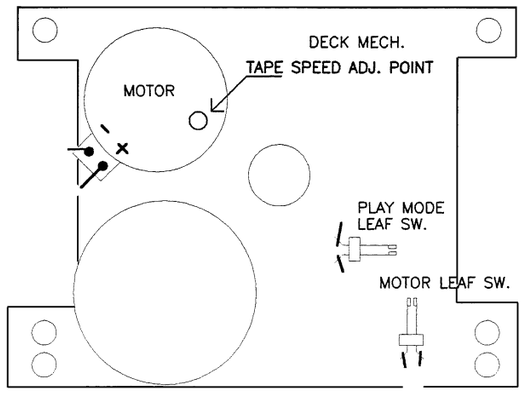
Q503	2SA1296GR			Q504	2SA933RS			Q505	DTC114TK			Q508	DTC144EK		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	9.68	10.1	5.22	dynamics	3.66	4.37	2.1	dynamics	0.1	2.5	2.51	dynamics	4.36	2.51	2.52
stafics (v)	9.7	10.3	5.1	stafics (v	4.21	4.85	1.6	stafics (v)	0.1	2.5	2.48	stafics (v)	4.32	2.48	2.49

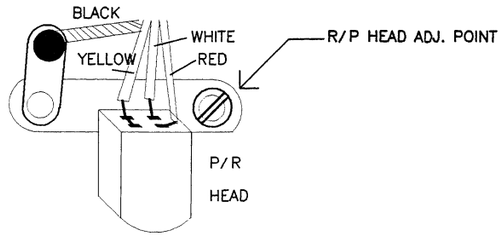
Q509	DTC144EK			Q510	DTC114TK										
PIN	B	E	C	PIN	B	E	C								
dynamics	4.36	2.51	2.52	dynamics	0.11	0	4.3								
stafics (v)	4.32	2.48	2.49	stafics (v	0.11	0	4.3								

ELECTRICAL ADJUSTMENT-1 (EXCEPT HS)

EXCEPT HS MODEL



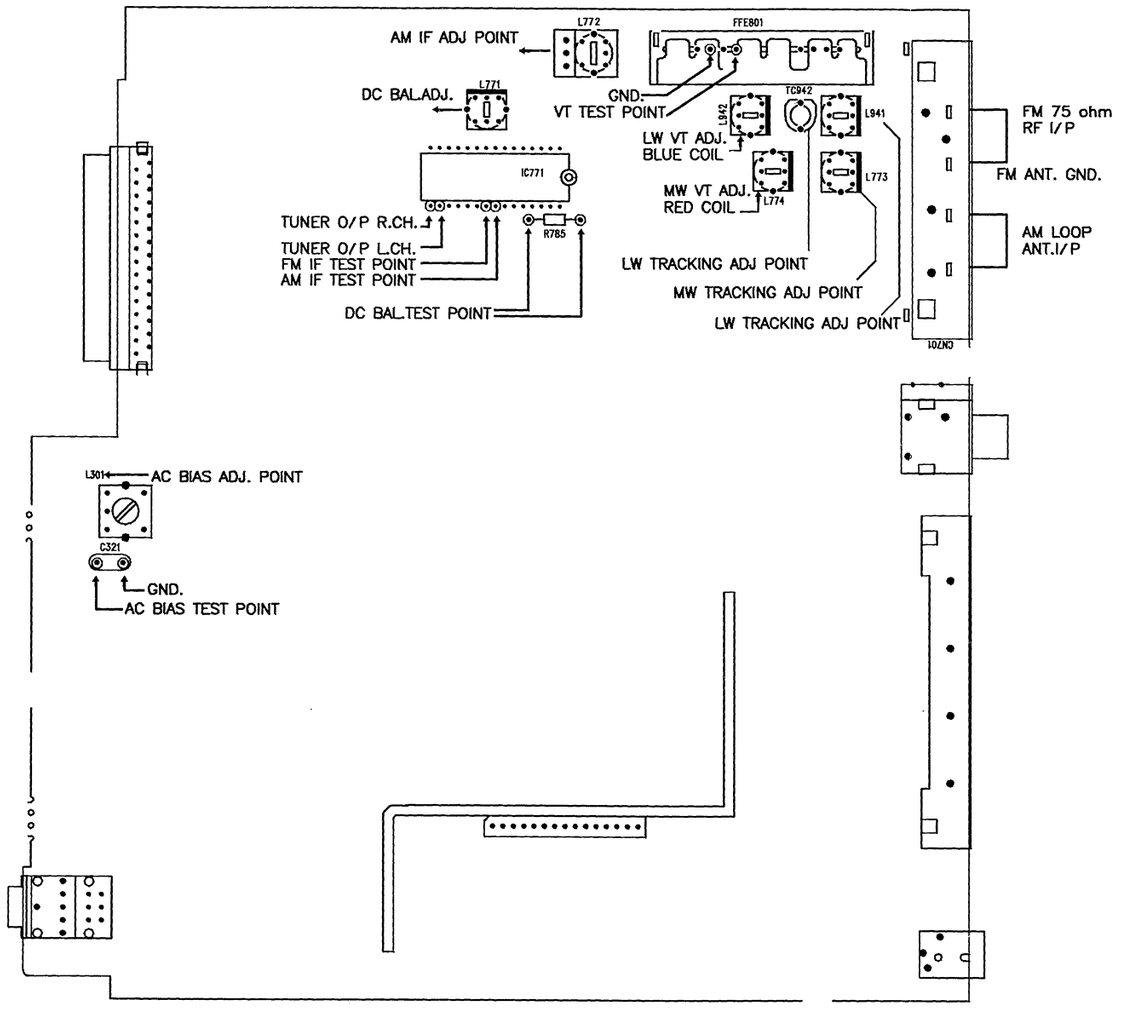


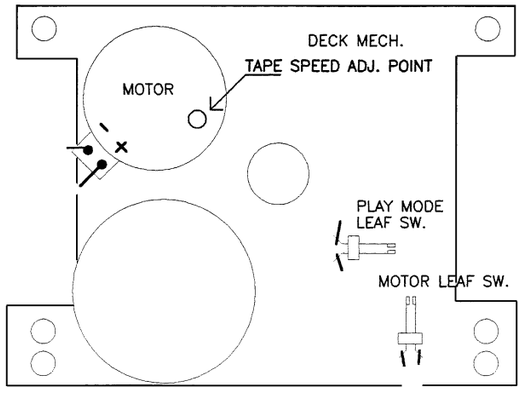


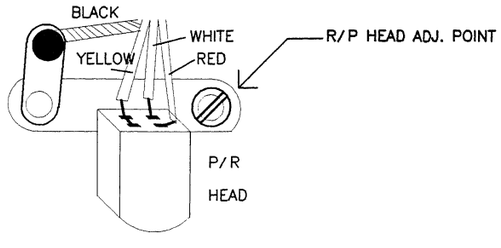
ADJASTMENT ITEM	ADJ. POINT	TEST POINT	SET FREQ.	SETTING
MW VT ADJ.	L981-2	FFE801 4PIN TO GND.	1602KHz	6.8V+/-0.1V
MW VT CHECK	-	FFE801 4PIN TO GND.	531KHz	<= 2.0V
MW TRACKING ADJ.	L981-1	TUNER O/P L/R	603KHz	MAX.Output Sine Wave(Min.Dist.)
FM VT ADJ.	-	FFE801 4PIN TO GND.	108 MHz	<= 8V
FM VT CHECK	-	FFE801 4PIN TO GND.	87.5MHz	<= 2.5V
DC BAL. ADJ.	L772	Both Terminal OF R785	98 MHz	0 mv (+/- 20 mv)
FM IF CHECK	-	IC 771 PIN 22	10.7 MHz	-
AM IF ADJ.	L773	IC 771 PIN 24	450 KHz	-
REC. BAIAS FREQ. ONLY CHECK	-	C321,330 Common/GND	-	72KHz +/-8KHz (With R/P HEAD)
REC.BIAS LEVEL ADJ.	L301	C321,330 Common/GND	-	10 V +/- 0.5V (With R/P HEAD)
BEAT CUT ST / ON MONO/OFF	TEST ONLY	C330,321 Common/GND	FM 98MHz Deck REC.	4 KHz +/- 1 KHz
TAPE SPEED	MOTOR	SPEAKER OUTPUT	-	3000Hz +3/-2%
DECK R/P HEAD ADJ.	R/P HEAD	SPEAKER OUTPUT	8 KHz TEST TAPE	-

ELECTRICAL ADJUSTMENT-2 (HS)

HS MODEL



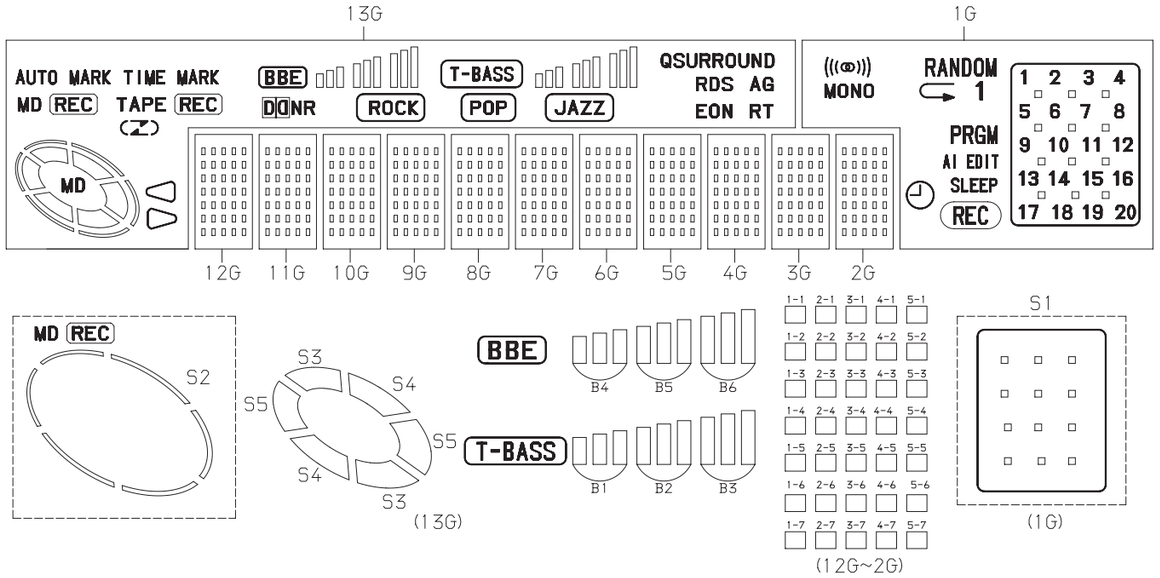




ADJASTMENT ITEM	ADJ. POINT	TEST POINT	SET FREQ.	SETTING
MW VT ADJ.	L774	FFE801 4PIN TO GND.	1602KHz	6.8V+/-0.1V
MW VT CHECK	-	FFE801 4PIN TO GND.	531KHz	<= 2.0V
MW TRACKING ADJ.	L773	TUNER O/P L/R	603KHz	MAX.Output Sine Wave(Min.Dist.)
LW VT ADJ.	L942	FFE801 4PIN TO GND.	290KHz	6.1V+/-0.1V
LW VT CHECK	TEST ONLY	FFE801 4PIN TO GND.	144KHz	<= 2.5V
LW TRACKING ADJ.	TC942	TUNER O/P L/R	290KHz	MAX.Output Sine Wave(Min.Dist.)
	L941	TUNER O/P L/R	144KHz	
FM VT ADJ.	-	FFE801 4PIN TO GND.	108 MHz	<= 8V
FM VT CHECK	-	FFE801 4PIN TO GND.	87.5MHz	<= 2.5V
DC BAL. ADJ.	L771	Both Terminal OF R785	98 MHz	0 mv (+/- 20 mv)
FM IF CHECK	-	IC 771 PIN 22	10.7 MHz	-
AM IF ADJ.	L772	IC 771 PIN 24	450 KHz	-
REC. BAIAS FREQ. ADJ.	-	C321,330 Common/GND	-	80KHz +/-3KHz (With R/P HEAD)
REC.BIAS LEVEL ONLY CHECK	L301	C321,330 Common/GND	-	10 V~18 V (With R/P HEAD)
BEAT CUT ST / ON MONO/OFF	TEST ONLY	C330,321 Common/GND	FM 98MHz Deck REC.	4 KHz +/- 1 KHz
TAPE SPEED	MOTOR	SPEAKER OUTPUT	-	3000Hz +3/-2%
DECK R/P HEAD ADJ.	R/P HEAD	SPEAKER OUTPUT	8 KHz TEST TAPE	-

FL (13-ST-36GNAK) GRID ASSIGNMENT/ANODE CONNECTION

GRID ASSIGNMENT

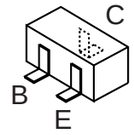


ANODE CONNECTION

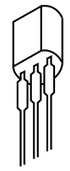
	13G	12G~2G	1G
P1	JAZZ	1-1	1
P2	POP	2-1	
P3	ROCK	3-1	MONO
P4	D NR	4-1	RANDOM
P5	RT	5-1	
P6	EON	1-2	PRGM
P7	AG	2-2	AI
P8	RDS	3-2	EDIT
P9	B1	4-2	SLEEP
P10	B2	5-2	
P11	B3	1-3	REC
P12	T-BASS	2-3	(CALENDAR) 1
P13	B4	3-3	2
P14	B5	4-3	3
P15	B6	5-3	4
P16	BBE	1-4	5
P17		2-4	6
P18		3-4	7

	13G	12G~2G	1G
P19		4-4	8
P20		5-4	9
P21		1-5	10
P22	TAPE REC	2-5	11
P23	S2	3-5	12
P24	S3	4-5	13
P25	S4	5-5	14
P26	S5	1-6	15
P27	MD	2-6	16
P28	TIME MARK	3-6	17
P29	AUTO MARK	4-6	18
P30	QSURROUND	5-6	19
P31	-	1-7	20
P32	-	2-7	S1
P33	-	3-7	-
P34	-	4-7	-
P35	-	5-7	-

TRANSISTOR ILLUSTRATION

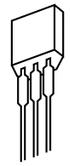


2SC2714
2SD1306
DTC114TK
DTC143TK
DTC144EK
RT1P141C
PT1P144C



E C B

2SA1296
2SC1815
KTC3198



E C B

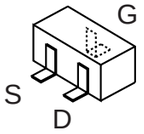
2SC4115
DTC124XS
DTC343TS

E C B

2SA933
2SB1010
2SC2001
SS8050

E C B

2SD1381



2SK543

IC DESCRIPTION

IC, LC867240A-5P15

Pin No.	Pin Name	I/O	Description
1	O-SCONTM	O	M62439SP control. open drain output.
2	O-SCONTL	O	
3	O-DATA	O	Tuner control. CMOS output.
4	I-$\overline{\text{TUNE}}$/IFC	I	Tuner control.
5	O-TUCL	O	Tuner control. CMOS output.
6	O-COIN	O	CD control. open drain output.
7	I-SQOUT	I	CD control.
8	O-$\overline{\text{CQCK}}$	O	CD control. open drain output.
9	O-RWC	O	
10	O-$\overline{\text{CLKSFT}}$	O	Clock shift output. “L” during shift. open drain output.
11	I-TMBASE	I	8 Hz time base input.
12	I-$\overline{\text{RESET}}$	I	Reset input.
13	XT1	I	Input pin.
14	XT2	O	Output pin for 32.768kHz crystal oscillation.
15	VSS1	—	GND.
16, 17	CF1, CF2	I/O	Main clock input/output 5.76 MHz.
18	VDD1	—	+5V.
19	I-KEY0	I	KEY0 A/D input.
20	I-KEY1	I	KEY1 A/D input.
21	I-RDSIG	I	RDS signal level input. (A/D input)
22	I-WRQ	I	CD control.
23	I-DRF	I	
24	I-DOOR	I	CD door SW detection SW input. “L” at CLOSE.
25	I-PUIN	I	CD pick-up detection SW input. “L” at ON.
26	I-SWTAPE	I	Tape detection SW input. (A/D input)
27	I-$\overline{\text{STEREO}}$	I	Monaural/stereo indication selector input. “L” at stereo.
28	I-RDCL	I	RDS clock input.
29	I-$\overline{\text{REM}}$	I	Remote control input. (fall-down edge interrupt input)
30	I-$\overline{\text{HOLD}}$	I	Hold mode detection. “L” at hold mode.
31	I-RDDT	I	RDS data input.
32	I-TPREC	I	Tape REC detection input. “H” at REC.
33	I-TPPLAY	I	Tape PLAY detection input. “H” at PLAY.
34	O-MOTOR	O	Mechanism deck motor ON/OFF output. “H” at ON. CMOS output.
35	O-PL	O	Mechanism deck plunger solenoid ON/OFF output. “H” at ON. CMOS output .
36-38	O-NC	O	Not used.
39-55	S9-S25	O	LCD SEG terminal Initial setting output. (S10 to S16)
56	VDD2	—	+5V.
57	VSS2	—	GND.
58-79	S26-S47	O	LCD SEG terminal .
80	I-CLKDSP	I	Watch indication select input “L”: 12H. “H”: 24H.
81	I-AS	I	Auto stop. counter input .

Pin No.	Pin Name	I/O	Description
82	I-$\overline{\text{STOP}}$	I	Tape stop input.
83-86	COM0-COM3	O	LCD common output.
87	I-INIT	I	Initial setting input.
88	I-AC/$\overline{\text{DC}}$	O	Beat selector output. “H” during selection. CMOS output .
89	VSS3	—	GND.
90	VDD3	—	5V.
91	O-NC	O	Not used.
92	O-TUCE	O	Tuner chip enable output. CMOS output .
93	O-CD-ON	O	“H” output during CD function. CMOS output.
94	O-$\overline{\text{TU-ON}}$	O	“H” output during TU function. Open drain output.
95	O-$\overline{\text{RMT}}$	O	REC mute output. “H” during mute. Open drain output.
96	O-$\overline{\text{REC}}$/$\overline{\text{PB}}$	O	REC/PB select output. “H” during PB. Open drain output.
97	O-MUTE	O	Mute output. “H” during mute. Open drain output.
98	O-PCONT	O	Power control output. “H” at ON. CMOS output.
99	O-$\overline{\text{BIAS}}$	O	REC bias ON/OFF output. “H” at ON. Open drain output.
100	O-NC	O	Not used.

IC, LA9241ML

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE–	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD–	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD–	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins.
19	FA–	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE–	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	SP	—	Single ended output of the CV+ and CV– pin input signal.
24	SPI	I	Spindle amp input.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP–	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL–, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP–, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

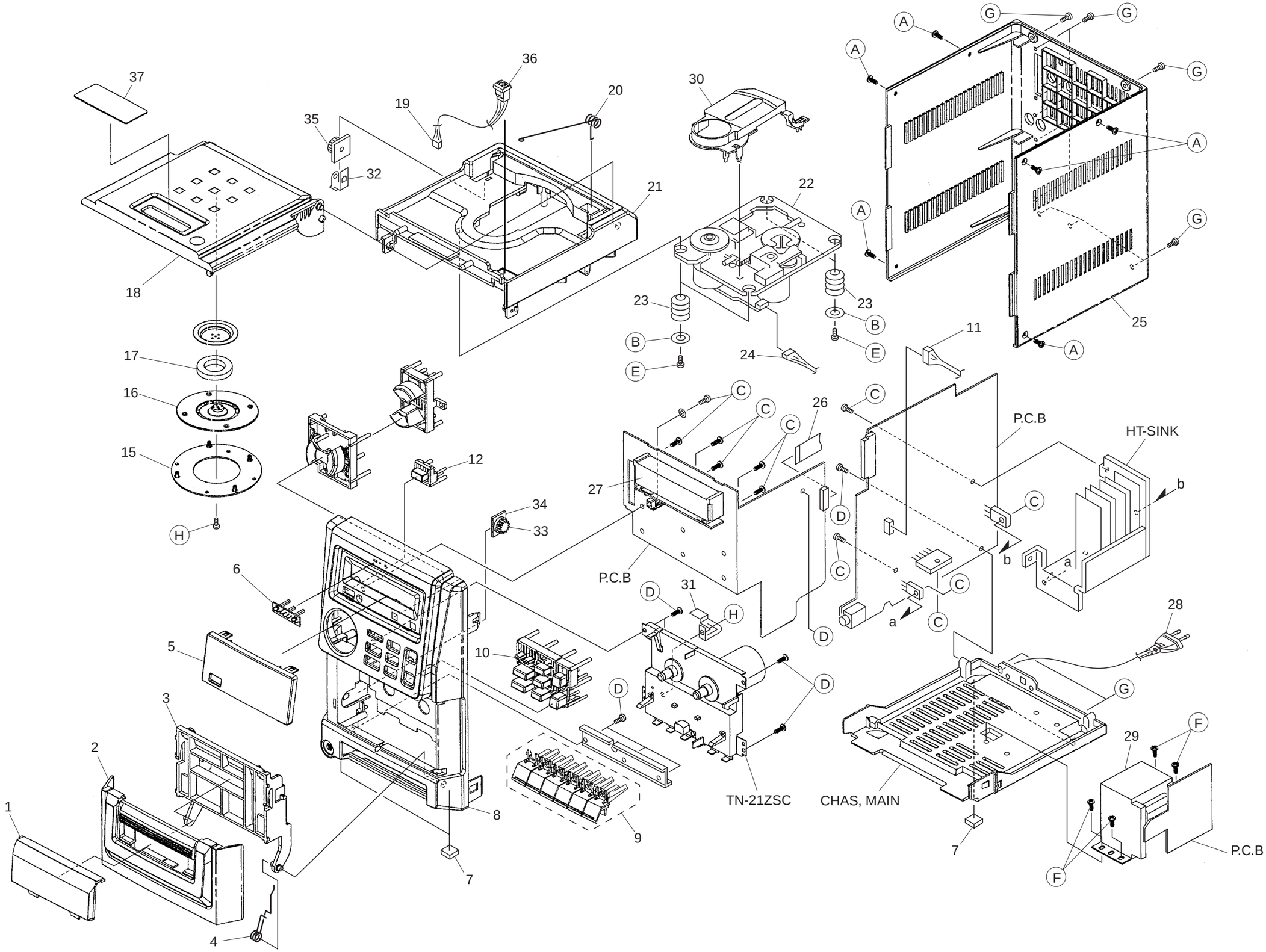
Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV–, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS–	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode (± search/+ search) select pin.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PD0 output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	TEST2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLV–	O	Disc motor control output. Three level output is possible using command.	
14	V/$\overline{P}$	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP–	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24-28	SL+, SL–, CONT3-5	I/O	General purpose input/output pin 1 to 5.	The pin is controlled by the serial data command from microprocessor. When the pin is not used, set the pin to the input terminal and connect to 0V, or alternately set the pin to output terminal and leave the pin open.
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	TEST3, TEST4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{CQCK}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	$\overline{RES}$	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	TST11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	TEST5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{CS}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	TEST1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

Note: The same potential must be applied to the respective power supply terminals. (VDD, VVDD, LVDD, RVDD, XVDD)

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL PARTS LIST 1/1

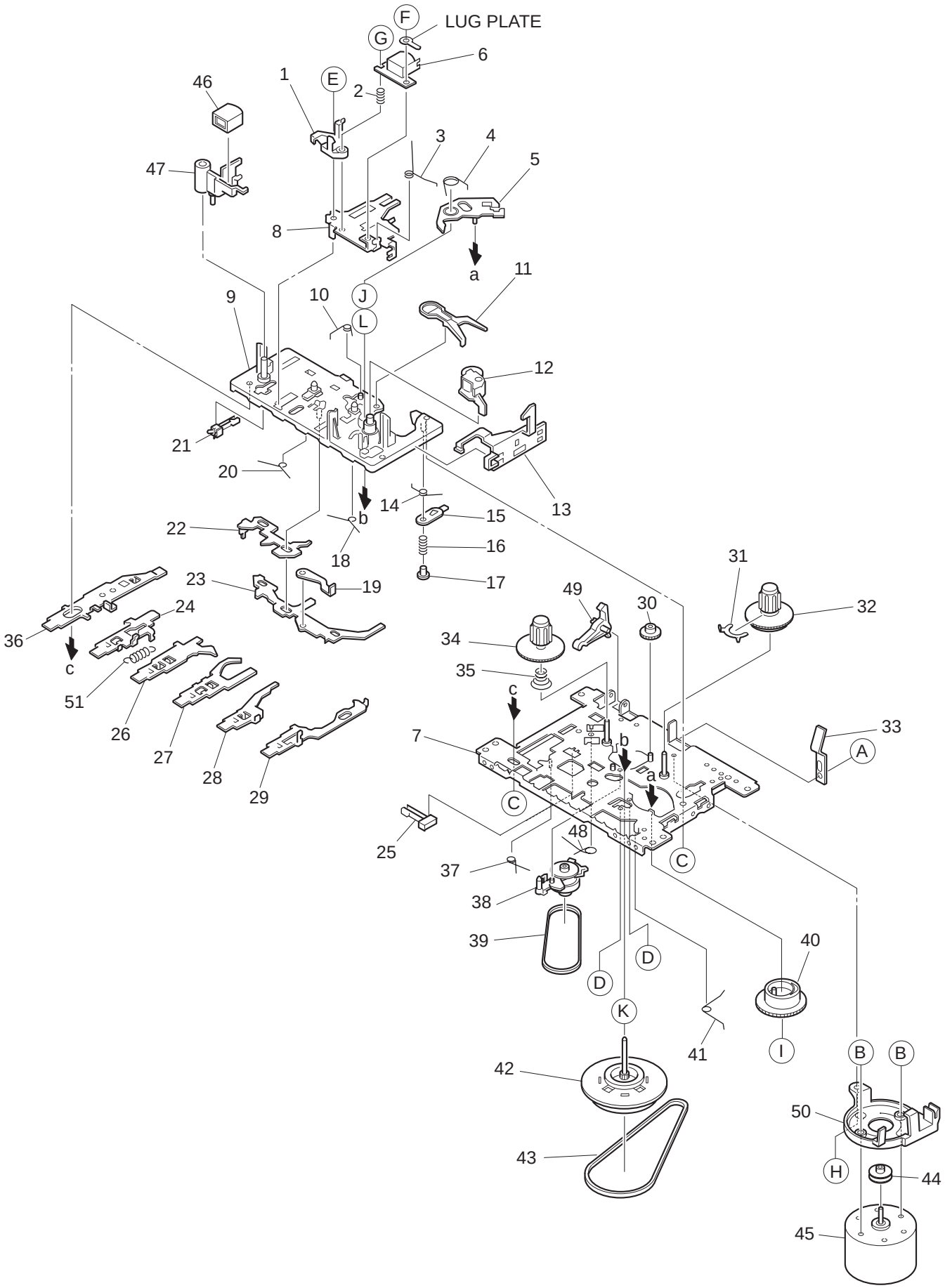
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLB-007-010		WINDOW,CASS
2	8A-CLB-005-010		LID,CASS
3	8A-CLB-006-010		BOX,CASS
4	8Z-CL8-209-010		SPR-T,CASS
5	8A-CLB-004-010		WINDOW,DISP
6	87-B00-002-010		BADGE,AIWA 30 ABS SIL
7	8Z-CL8-204-010		CUSH,FOOT
8	8A-CLM-002-010		CABI,FRONT EX
9	8A-CLB-008-010		KEY,CASS SET
10	8A-CLB-009-010		KEY,CONT
11	8Z-CL8-686-110		CONN ASSY,8P RPH
12	8A-CLB-012-010		KEY,POWER
13	8A-CLB-010-010		KEY,SKIP
14	8A-CLB-011-010		KEY,P/S
15	8Z-CDB-170-010		BASE,CHUCK
16	88-CD9-211-210		RING,CHUCK
17	87-036-368-010		MAGNET
18	8A-CLB-002-010		LID,CD
19	8Z-CL8-683-010		CONN ASSY,2P CD DOOR
20	8Z-CL8-205-010		SPR-T,CD
21	8A-CLB-003-010		CHAS,CD
22	M8-ZZK-E90-070		DA11T3C
23	88-CT6-206-010		CUSHION,CD
24	8Z-CL8-681-010		CONN ASSY,6P CD MOTOR
25	8A-CLB-020-010		CABI,REAR<VJS>
25	8A-CLB-028-010		CABI,REAR EZ<HSS>
25	8A-CLB-037-010		CABI,REAR H<HRJ,HA,HTS,HC1>
26	8Z-CL8-682-010		FF-CABLE, 16P 1.0 180MM
27	8Z-CL8-201-010		GUIDE,LCD
⚠ 28	87-A80-006-010		AC CORD ASSY HS<HSS>
⚠ 28	87-A80-105-010		AC CORD ASSY,AZ<HA>
⚠ 28	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI <HRJ,VJS,HTS>
⚠ 28	87-A80-083-010		AC CORD,HC BLK<HC1>
⚠ 29	8A-CLL-621-010		PT,EZ ACL-L<VJS,HSS>
⚠ 29	8A-CLL-620-010		PT,H ACL-L<HRJ,HA,HTS,HC1>
30	8Z-CDB-169-010		PANEL,CD SANYO
31	8Z-CL8-206-010		SPR-P,REC
32	8Z-CL8-214-010		DMPR,HLDR BE
33	84-CD5-215-010		GEAR
34	84-CD5-216-010		BRACKET
35	86-NFZ-231-010		DMPR,70
36	87-064-108-110		HLDR,NC LUTCH
37	8A-CLB-027-010		WINDOW,CD
A	87-B10-239-010		QT2+3-8 W/O CR
B	8Z-CL8-220-010		W,30-0856-01-01-01
C	87-067-579-010		TAPPING SCREW, BVT2+3-8
D	87-067-703-010		TAPPING SCREW, BVT2+3-10
E	87-342-074-010		UT2+2.6-8
F	87-761-097-410		VFT2+3-12 SLOT
G	87-B10-230-010		BVT2+3-10 W/O SLOT SILVER CR
H	87-571-033-410		TAPPING SCREW, VIT+2-4

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

TAPE MECHANISM EXPLODED VIEW 1/1

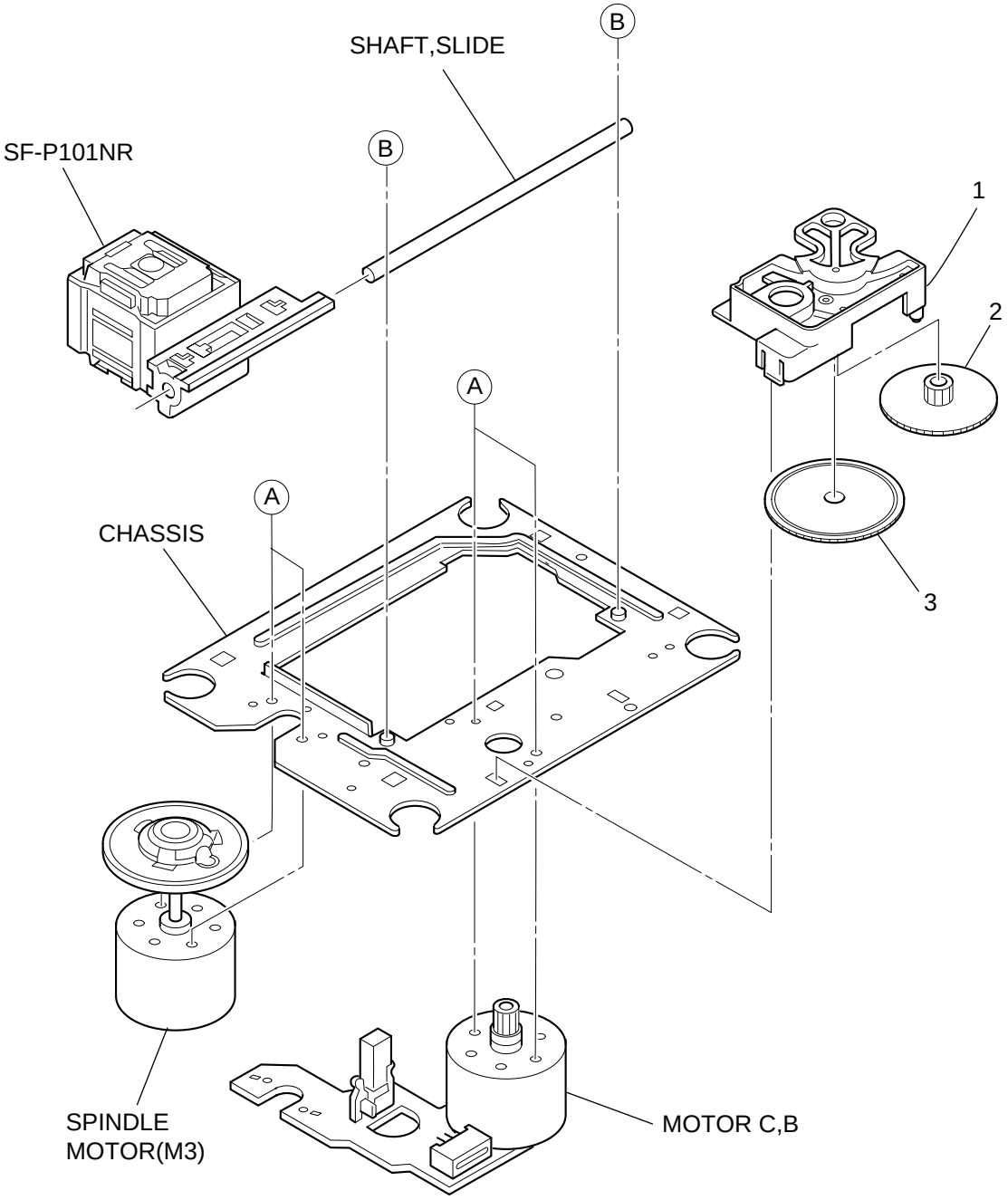


TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-030-4A0		HEAD BASE
2	S1-821-030-070		AZIMUTH SPRING
3	S1-921-030-090		PANEL P SPRING
4	S1-921-260-050		GEAR PLATE SPRING
5	S1-921-265-020		GEAR PLATE ASSY
6	S6-201-011-110		HEAD,RP7442ES-0951
7	S1-921-015-010		CHASSIS ASSY
8	S1-921-030-110		HEAD PANEL
9	S1-921-143-160		BASE ASSY
10	S1-921-141-8A0		M CONTROL SPRING
11	S1-921-260-4A0		SENSING LEVER
12	S1-921-043-100		PINCH ROLLER ARM ASSY
13	S1-921-130-020		EJECT SLIDE LEVER
14	S1-921-141-3A0		P CONTROL SPRING
15	S1-921-140-550		PAUSE LEVER(E)
16	S1-921-140-120		PAUSE LEVER SPRING
17	S1-921-140-110		PAUSE STOPPER
18	S1-921-140-150		BUTTON LEVER SPRING(B)
19	S1-821-011-590		E KICK LEVER
20	S1-921-141-070		BUTTON LEVER SPRING(A)
21	S6-401-011-490		LEAF SW MSW-1541T
22	S1-921-140-090		SWITCH ACTUATOR
23	S1-921-140-080		PUSH BUTTON ACTUATOR
24	S1-921-140-230		PLAY BUTTON LEVER
25	S6-401-011-610		LEAF SW MSW-17820MVEI
26	S1-921-140-240		REW BUTTON LEVER
27	S1-921-140-250		FF BUTTON LEVER
28	S1-921-140-260		STOP BUTTON LEVER
29	S1-921-140-610		PAUSE BUTTON LEVER
30	S1-821-100-700		FF GEAR
31	S1-921-050-060		SENSER
32	S1-921-053-100		TAKE UP REEL ASSY
33	S1-829-100-010		PACK SPRING
34	S1-921-050-150		S REEL HUB
35	S1-921-050-220		BACK TENSION SPRING
36	S1-921-140-220		REC BUTTON LEVER
37	S1-921-140-170		P.S.LEVER SPRING
38	S1-921-073-040		RF CLUTCH ASSY
39	S1-921-070-030		RF BELT
40	S1-921-260-020		CAM GEAR
41	S1-921-140-160		E ACTUATOR SPRING
42	S1-921-093-210		FLYWHEEL ASSY
43	S1-921-090-380		MAIN BELT
44	S1-921-120-590		MOTOR PULLEY
45	S6-002-030-220		MOTOR EG530AD-2B
46	S6-209-100-100		E HEAD PH-K380-MS1
47	S1-921-030-050		MG ARM
48	S1-921-140-210		REC BUTTON LEVER SPRING
49	S1-821-100-690		RECORD SAFETY LEVER
50	S1-821-128-9A0		MOTOR BRACKET
51	S1-821-010-500		PLAY BUTTON LEVER SPRING
A	S9-P04-200-310		C TAPPING SCREW 2-3
B	S1-921-120-020		MOTOR COLLER SCREW
C	S9-B10-200-510		P TAPPING BIND SCREW M2-5
D	S9-C07-204-510		SCREW,TAPPING(CAMERA)M2-4.5
E	S9-P01-200-610		SCREW,M2-6
F	S9-B01-200-310		(+)BIND SCREW M2-3
G	S9-F08-200-710		AZIMUTH SCREW M2-7
H	S1-921-120-030		MB SCREW
I	S9-W02-300-100		P WASHER CUT 1.2-3.8-0.3
J	S9-W02-500-100		P WASHER CUT 1.45-3.8-0.5
K	S9-W01-400-100		P WASHER 2-3.5-0.4
L	S9-W01-130-200		P WASHER 2.1-4-0.13

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

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If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S2-121-A28-400		COVER GEAR
2	S2-511-A21-000		GEAR MIDDLE
3	S2-511-A21-100		GEAR,DRIVE
A	S1-PN2-03R-OSE		SCR PAN PCS 2-3
B	87-261-073-410		SCR S-TPG FLT 2.6-6
ALL	M8-ZZK-E90-070		DA11T3C

SPEAKER PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLL-600-010		SPKR, 40HM 5W ACL-L
2	8A-CLB-014-010		CABI,FR SPKR
3	8A-CLB-016-010		FRAME,SPKR
4	8Z-CL7-107-010		BADGE,AIWA SILVER
5	8A-CLL-601-010		CORDASSY,SPKR-BLK ACL-L/M

ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
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REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLM-911-010		IB,H(EC-K)B<HC1>
1	8A-CLM-901-010		IB,H(ECA)B<HRJ,HTS>
1	8A-CLM-902-010		IB,LH(ESP)B<HA>
1	8A-CLM-907-010		IB,V(ER)B<VJS>
2	8A-CLB-961-010		RC UNIT,RC-AAT11
3	87-A90-030-010		ANT,LOOP AM-NC C
4	87-043-115-010		ANT,FEEDER FM<EXCEPT HSS>
5	87-A90-118-010		ANT,WIRE FM (Z)<HSS>
⚠ 6	87-A91-017-010		PLUG,CONVERSION JT-0476 <HRJ,HA,HTS,HC1>

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